



Public Health
England

Protecting and improving the nation's health

Progress towards ending the HIV epidemic in the United Kingdom

2018 report – appendix

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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Appendix 1: Number and proportion of likely recently acquired infections at diagnosis by exposure category and age group – England, Wales and Northern Ireland, 2017^{1,2}

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

¹ Ascertained through the Recent Infection Testing Algorithm (RITA).

² Overall, 47% of new HIV diagnoses had a test for recent infection.

Appendix 2: List of countries where HIV prevalence is greater than 1%, 2017, UNAIDS

** Country of birth where 10 or more people were diagnosed with HIV in the UK in 2017*

Africa

Angola*, Benin, Botswana, Burundi, Cameroon*, Central African Republic, Chad, Cote d'Ivoire*, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Gabon, the Gambia, Ghana*, Guinea*, Guinea-Bissau, Kenya*, Lesotho, Liberia, Malawi*, Mali, Mozambique, Namibia, Nigeria*, Republic of the Congo*, Rwanda, Sierra Leone*, South Africa*, Swaziland, Togo, Uganda*, United Republic of Tanzania*, Zambia* and Zimbabwe*

South America

Bahamas, Barbados, Belize, Guyana, Haiti, Jamaica*, Panama, Trinidad and Tobago

Europe

Russian Federation*

Asia

Thailand*

Appendix 3: HIV testing recommendations and PHE monitoring data sources

HIV testing recommendation	Primary guidance source(s)	Information system
Universal testing in specialist services		
Sexual health clinics (SHS)	NICE 2016, BASHH/BHIVA/BIS 2008	GUMCAD
Termination of pregnancy services	NICE 2016, BASHH/BHIVA/BIS 2008	No data source available
Services for people who use drugs	NICE 2016, BASHH/BHIVA/BIS 2008	UAM Survey of PWID
Specialist clinical services (TB, HCV, HBV, lymphoma ¹)	NICE 2016, HIV in Europe 2012	ETS, SSBV
Prisons	NICE 2016	HJIPS, GUMCAD
Routine testing in clinical settings in areas of high and extremely high prevalence (≥2 per 1,000 population 15-59 years old)		
General practice	NICE 2016	SSBBV
Secondary and emergency care	NICE 2016	SSBBV
Testing at home and community settings targeting at-risk groups		
BA communities, gay and bisexual men	NICE 2016	GUMCAD, Annual survey
Self-sampling Self-testing	NICE 2016 WHO 2016 IUSTI 2014	National HIV Self-Sampling Service Independent data source Annual survey
Universal testing where there is a HIV transmission risk to others (includes screening)		
Antenatal screening	UK NSC 2006, IDPS 2016	IDPS
Blood, tissue, organ donation screening	JPAC 2013	NHSBT/PHE
Routine testing in high-risk groups		
Those with clinical indicator diseases (including STIs, TB, HCV, HBV)	NICE 2016, HIV in Europe 2012	SSBBV, ETS, GUMCAD
Sexual partners of those with known HIV	BASHH/BHIVA/SSHA/NAT 2015, WHO 2016	GUMCAD
Those with history of injecting drug use	NICE 2016, WHO 2016	UAM Survey of PWID
Those from country of high HIV prevalence (>1%)	NICE 2016, BASHH/BHIVA/BIS 2008	GUMCAD ETS
Sex workers	RCGP/BASHH 2013, WHO 2016	GUMCAD
Transgender people	WHO 2016	National HIV Self-Sampling Service Annual survey
Victims of sexual assault	RCGP/BASHH 2013	No data source available
Female sexual contacts of gay and bisexual men	NICE 2016, BASHH/BHIVA/BIS 2008	No data source available
Those reporting sexual contact with people from countries of high HIV prevalence	NICE 2016, BASHH/BHIVA/BIS 2008	No data source available

¹ No data is available for lymphoma services.

Appendix 4: Local authorities with diagnosed HIV prevalence rates above 2 per 1,000 population¹ – England, 2017

HIV prevalence category	Upper tier local authority name	Local authority name	Residents accessing HIV related care (aged 15 to 59)	Estimated resident population in 1,000s ² (15 to 59)	Diagnosed HIV prevalence per 1,000 (aged 15 to 59)
5+	City of London	City of London	81	4.60	17.60
	Lambeth	Lambeth	3,412	232.97	14.65
	Southwark	Southwark	2,706	221.56	12.21
	Kensington and Chelsea	Kensington and Chelsea	907	99.81	9.09
	Westminster	Westminster	1,450	165.46	8.76
	Lewisham	Lewisham	1,693	202.62	8.36
	Brighton and Hove	Brighton and Hove	1,590	195.07	8.15
	Camden	Camden	1,342	171.60	7.82
	Hackney	Hackney	1,498	192.17	7.80
	Islington	Islington	1,329	170.73	7.78
	Hammersmith and Fulham	Hammersmith and Fulham	975	125.48	7.77
	Haringey	Haringey	1,214	182.53	6.65
	Tower Hamlets	Tower Hamlets	1,405	221.09	6.35
	Greenwich	Greenwich	1,153	183.33	6.29
	Newham	Newham	1,404	237.34	5.92
	Manchester	Manchester	2,146	371.27	5.78
	Barking and Dagenham	Barking and Dagenham	742	128.63	5.77
Croydon	Croydon	1,305	234.22	5.57	
Wandsworth	Wandsworth	1,227	226.23	5.42	
2 to 4.99	Waltham Forest	Waltham Forest	843	177.94	4.74
	Salford	Salford	733	155.72	4.71
	Brent	Brent	927	209.10	4.43
	Merton	Merton	558	130.62	4.27
	Blackpool	Blackpool	321	78.91	4.07
	Luton	Luton	529	130.17	4.06
	Leicester	Leicester	882	224.62	3.93
	Hounslow	Hounslow	628	169.76	3.70
	Enfield	Enfield	746	203.16	3.67
	Ealing	Ealing	772	213.85	3.61

¹ Complete list of diagnosed HIV prevalence rates available from: www.gov.uk/government/statistics/hiv-annual-data-tables.

² Population data from Office for National Statistics mid-2017 population estimate.

HIV prevalence category	Upper tier local authority name	Local authority name	Residents accessing HIV related care (aged 15 to 59)	Estimated resident population in 1,000s ² (15 to 59)	Diagnosed HIV prevalence per 1,000 (aged 15 to 59)
	Reading	Reading	368	104.47	3.52
	Bournemouth	Bournemouth	411	118.97	3.45
	Slough	Slough	313	91.40	3.42
	Northamptonshire	Northampton	461	135.12	3.41
	Wolverhampton	Wolverhampton	519	152.42	3.41
	West Sussex	Crawley	227	68.27	3.32
	Nottingham	Nottingham	716	220.00	3.25
	Milton Keynes	Milton Keynes	520	159.97	3.25
	Coventry	Coventry	736	228.91	3.22
	Northamptonshire	Corby	122	41.48	2.94
	Barnet	Barnet	696	236.98	2.94
	Southend-on-Sea	Southend-on-Sea	301	104.28	2.89
	Bexley	Bexley	408	145.95	2.80
	Hertfordshire	Watford	165	59.65	2.77
	Redbridge	Redbridge	515	186.54	2.76
	Hertfordshire	Stevenage	146	52.93	2.76
	Sandwell	Sandwell	528	191.76	2.75
	Birmingham	Birmingham	1,910	698.10	2.74
	Hillingdon	Hillingdon	503	186.48	2.70
	Leeds	Leeds	1,297	483.96	2.68
	Bromley	Bromley	500	192.43	2.60
	Bedford	Bedford	252	98.01	2.57
	Bristol, City of	Bristol, City of	763	299.34	2.55
	Richmond upon Thames	Richmond upon Thames	295	116.81	2.53
	Sutton	Sutton	307	122.09	2.51
	Derby	Derby	379	152.47	2.49
	East Sussex	Hastings	131	52.86	2.48
	Southampton	Southampton	401	165.05	2.43
	East Sussex	Eastbourne	130	55.06	2.36
	Harrow	Harrow	350	148.39	2.36
	West Sussex	Worthing	143	60.77	2.35
	Northamptonshire	Wellingborough	103	43.98	2.34
	Peterborough	Peterborough	270	117.39	2.30
	Thurrock	Thurrock	229	102.11	2.24
	Hertfordshire	Hertsmere	130	59.07	2.20
	West Sussex	Adur	75	34.15	2.20

HIV prevalence category	Upper tier local authority name	Local authority name	Residents accessing HIV related care (aged 15 to 59)	Estimated resident population in 1,000s ² (15 to 59)	Diagnosed HIV prevalence per 1,000 (aged 15 to 59)
	East Sussex	Lewes	117	53.39	2.19
	Walsall	Walsall	350	160.42	2.18
	Norfolk	Norwich	197	90.70	2.17
	Essex	Harlow	109	50.40	2.16
	Liverpool	Liverpool	679	315.48	2.15
	Torbay	Torbay	148	69.36	2.13
	Stoke-on-Trent	Stoke-on-Trent	318	149.09	2.13
	Kingston upon Thames	Kingston upon Thames	233	109.85	2.12
	Kent	Dartford	137	64.81	2.11
	Havering	Havering	309	148.37	2.08
	Hampshire	Rushmoor	124	59.63	2.08
	Kent	Gravesham	124	61.38	2.02
	Surrey	Woking	118	58.56	2.02
	Bolton	Bolton	330	164.29	2.01

Appendix 5: Estimated number of people living with HIV (diagnosed and undiagnosed) by exposure group – UK, 2017

Exposure category	Number diagnosed (credible interval) ¹	Number undiagnosed (credible interval) ¹	Total (credible interval) ¹	% Undiagnosed (credible interval) ¹
Gay and bisexual men	44,700 (44,300, 45,100)	4,200 (2,300, 8,700)	48,900 (47,000, 53,400)	9% (5, 16%)
People who inject drugs	2,200 (2,100, 2,400)	200 (100, 500)	2,500 (2,300, 2,800)	10% (5, 18%)
Heterosexuals	44,200 (43,800, 44,600)	3,200 (2,500, 4,900)	47,400 (46,600, 49,200)	7% (5, 10%)
Men	17,100 (16,800, 17,300)	1,300 (900, 2,900)	18,400 (17,900, 20,000)	7% (5, 15%)
Black African men	8,200 (8,100-8,400)	400 (300, 500)	8,600 (8,400, 8,900)	5% (4, 6%)
Men excluding black Africans	8,800 (8,600, 9,000)	900 (500, 2,500)	9,700 (9,300, 11,400)	9% (5, 22%)
Women	27,100 (26,800, 27,400)	1,900 (1,500, 2,400)	29,000 (28,500, 29,700)	6% (5, 8%)
Black African women	17,400 (17,100, 17,600)	1,100 (800, 1,500)	18,500 (18,100, 18,900)	6% (4, 8%)
Women excluding black Africans	9,700 (9,500, 9,900)	800 (600, 1,200)	10,500 (10,200, 11,000)	8% (6, 11%)
Total²	93,800 (93,200, 94,400)	7,800 (5,600, 12,600)	101,600 (99,300, 106,400)	8% (6, 12%)

¹ Lower bound, upper bound.² Numbers may not add to total due to rounding and inclusion of data relating to HIV acquired through mother-to-child transmission and blood related products in the total.

Appendix 6: Estimated number of people living with HIV (diagnosed and undiagnosed) by exposure group and region of residence – UK, 2017

Exposure category	London			Outside London		
	Number undiagnosed (credible interval) ¹	Total (credible interval) ¹	% Undiagnosed (credible interval) ¹	Number undiagnosed (credible interval) ¹	Total (credible interval) ¹	% Undiagnosed (credible interval) ¹
Gay and bisexual men	1,000 (500, 2,100)	20,300 (19,700, 21,400)	5% (3, 10%)	3,100 (1,500, 7,300)	28,600 (26,900, 32,800)	11% (5, 22%)
People who inject drugs	70 (20, 200)	800 (700, 900)	9% (3, 20%)	200 (90, 400)	1,700 (1,600, 1,900)	10% (5, 19%)
Heterosexuals	900 (700, 1,300)	16,700 (16,300, 17,200)	5% (4, 8%)	2,300 (1,800, 3,700)	30,800 (30,100, 32,200)	8% (6, 12%)
Men	300 (200, 700)	6,300 (6,000, 6,700)	5% (4, 11%)	900 (600, 2,300)	12,100 (11,700, 13,500)	8% (5, 17%)
Black African men	100 (90, 200)	3,400 (3,300, 3,500)	4% (3, 6%)	300 (200, 400)	5,200 (5,100, 5,400)	5% (4, 7%)
Men excluding black Africans	200 (100, 600)	2,800 (2,700-3,200)	7% (3, 18%)	700 (400, 2,000)	6,900 (6,500, 8,200)	10% (6, 25%)
Women	500 (400, 700)	10,400 (10,200, 10,600)	5% (4, 6%)	1,300 (1,000, 1,800)	18,600 (18,200, 19,200)	7% (6, 10%)
Black African women	300 (200, 400)	7,100 (6,900, 7,300)	5% (4, 6%)	700 (500, 1,100)	11,300 (11,000, 11,800)	6% (5, 9%)
Women excluding black Africans	200 (100, 300)	3,300 (3,200, 3,500)	6% (4, 9%)	600 (400, 1,000)	7,200 (7,000, 7,600)	8% (6, 13%)
Total²	2,000 (1,400, 3,200)	38,600 (37,900, 39,800)	5% (4, 8%)	5,800 (3,800, 10,100)	62,900 (60,900, 67,300)	9% (6, 15%)

¹ Lower bound, upper bound.

² Numbers may not add to total due to rounding and exclusion of data relating to HIV acquired through mother-to-child transmission and blood related products.

Appendix 7: Rates of late diagnosis (CD4 count <350 cells/mm³) by exposure group, ethnicity and gender – England, 2015 to 2017

Exposure group	Ethnicity	Gender	Measure	London	Midlands and East of England	North of England	South of England	England total
Gay and bisexual men			Number of diagnoses with CD4 count	2,722	996	1,106	952	5,776
			Number with CD4 count <350	670	376	410	327	1,783
			% diagnosed late	25%	38%	37%	34%	31%
Heterosexual contact	Black African	Male	Number of diagnoses with CD4 count	231	192	118	59	600
			Number with CD4 count <350	151	124	81	39	395
			% diagnosed late	65%	65%	69%	66%	66%
		Female	Number of diagnoses with CD4 count	356	331	183	136	1,006
			Number with CD4 count <350	183	154	93	86	516
			% diagnosed late	51%	47%	51%	63%	51%
	White	Male	Number of diagnoses with CD4 count	163	215	198	233	809
			Number with CD4 count <350	80	121	117	127	445
			% diagnosed late	49%	56%	59%	55%	55%
		Female	Number of diagnoses with CD4 count	106	189	156	145	596
			Number with CD4 count <350	46	91	77	57	271
			% diagnosed late	43%	48%	49%	39%	45%
	Other	Male	Number of diagnoses with CD4 count	195	101	57	62	415
			Number with CD4 count <350	116	55	30	38	239
			% diagnosed late	59%	54%	53%	61%	58%
		Female	Number of diagnoses with CD4 count	239	118	65	74	496
			Number with CD4 count <350	122	56	26	44	248
			% diagnosed late	51%	47%	40%	59%	50%
People who inject drugs			Number of diagnoses with CD4 count	59	74	34	50	217
			Number with CD4 count <350	25	34	18	24	101
			% diagnosed late	42%	46%	53%	48%	47%

Appendix 8: HIV test offer, coverage and positivity – setting, gender and sexual orientation, England, 2017

a) All sexual health services

Sexual orientation	Eligible attendees ¹	Offered (Offered %)		Tested (Coverage %)		New Diagnoses (Positivity %)	
Heterosexual men	512,327	459,823	89.8	393,704	76.8	412	0.1
Gay and bisexual men	130,617	120,524	92.3	116,071	88.9	1,038	0.9
Men (total) ²	683,010	599,861	87.8	527,224	77.2	1,499	0.3
Heterosexual women	996,358	788,731	79.2	551,773	55.4	425	0.1
Women (total) ^{2,3}	1,091,709	826,108	75.7	578,881	53.0	450	0.1
Total⁴	1,777,412	1,427,670	80.3	1,107,743	62.3	1,956	0.2

b) Specialist sexual health services⁵

Sexual orientation	Eligible attendees ¹	Offered (Offered %)		Tested (Coverage %)		New diagnoses (Positivity %)	
Heterosexual men	472,184	427,930	90.6	366,714	77.7	402	0.1
Gay and bisexual men	121,971	112,744	92.4	108,548	89.0	1,020	0.9
Men (total) ²	618,322	554,777	89.7	487,648	78.9	1,469	0.3
Heterosexual women	853,680	693,623	81.3	499,179	58.5	402	0.1
Women (total) ^{2,3}	911,682	719,504	78.9	517,552	56.8	424	0.1
Total⁴	1,532,373	1,275,780	83.3	1,006,652	65.7	1,900	0.2

c) SRH sexual health services (non-specialist)

Sexual orientation	Eligible attendees ¹	Offered (Offered %)		Tested (Coverage %)		New diagnoses (Positivity %)	
Heterosexual men	24,572	20,489	83.4	15,842	64.5	9	0.1
Gay and bisexual men	3,673	3,219	87.6	2,974	81.0	18	0.6
Men (total) ²	34,183	24,859	72.7	19,644	57.5	29	0.1
Heterosexual women	108,947	73,423	67.4	32,004	29.4	23	0.1
Women (total) ^{2,3}	123,932	77,569	62.6	33,522	27.0	26	0.1
Total⁴	158,363	102,582	64.8	53,304	33.7	55	0.1

d) Other non-specialist sexual health services⁶

Sexual orientation	Eligible attendees ¹	Offered (Offered %)		Tested (Coverage %)		New diagnoses (Positivity %)	
Heterosexual men	15,571	11,404	73.2	11,148	71.6	1	0.0
Gay and bisexual men	4,973	4,561	91.7	4,549	91.5	0	0.0
Men (total) ²	30,505	20,225	66.3	19,932	65.3	1	0.0
Heterosexual women	33,731	21,685	64.3	20,590	61.0	0	0.0
Women (total) ^{2,3}	56,095	29,035	51.8	27,807	49.6	0	0.0
Total⁴	86,676	49,308	56.9	47,787	55.1	1	0.0

¹ Eligible SHS attendee: any patient attending a SHS at least once during a calendar year; excluding those patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being and related for reproductive health care only.

² Includes those where orientation is not known.

³ Includes those who identified as women who have sex with women (WSW).

⁴ Includes those where gender is unknown/not specified.

⁵ Specialist SHS refers to level 3 sexual health services (including genitourinary medicine (GUM) and integrated GUM/sexual and reproductive health (SRH)).

⁶ This includes data submitted from other level 2 sexual health services including; young people's services, online sexual health services, enhanced GPs and other sexual health services.

Appendix 9: HIV test, coverage and positivity in eligible¹ attendees at all SHS – gender and sexual orientation, England, 2013 to 2017

Gender and sexual orientation		2013	2014	2015	2016	2017
Heterosexual men	Tested	395,014	401,787	401,038	408,430	393,704
	Coverage %	74.4	75.0	76.1	76.7	76.8
	New diagnoses	681	654	624	584	412
	Positivity %	0.2	0.2	0.2	0.1	0.1
Gay and bisexual men	Tested	79,598	93,286	101,612	106,274	116,071
	Coverage %	85.2	86.6	87.7	88.2	88.9
	New diagnoses	1,718	1,840	1,733	1,299	1,038
	Positivity %	2.2	2	1.7	1.2	0.9
Men (total) ²	Tested	491,817	513,899	520,122	528,673	527,224
	Coverage %	74.3	74.7	75.8	76.8	77.2
	New diagnoses	2,443	2,529	2,393	1,904	1,499
	Positivity %	0.5	0.5	0.5	0.4	0.3
Heterosexual women	Tested	496,414	521,606	527,305	550,381	551,773
	Coverage %	56.6	56	55.1	55.4	55.4
	New diagnoses	657	646	485	447	425
	Positivity %	0.1	0.1	0.1	0.1	0.1
Women (total) ^{2,3}	Tested	522,265	550,283	553,926	573,536	578,881
	Coverage %	53.1	52	51.5	52.6	53
	New diagnoses	681	665	501	457	450
	Positivity %	0.1	0.1	0.1	0.1	0.1
Total ⁴	Tested	1,014,241	1,064,343	1,074,244	1,102,681	1,107,743
	Coverage %	61.6	60.9	61	61.9	62.3
	New diagnoses	3,125	3,194	2,895	2,361	1,956
	Positivity %	0.3	0.3	0.3	0.2	0.2

¹ Eligible SHS attendee: any patient attending a SHS at least once during a calendar year; excluding those patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being and related for reproductive health care only.

² Includes those where orientation is not known.

³ Includes those who identified as women who have sex with women (WSW).

⁴ Includes those where gender is unknown/not specified.

Appendix 10: Specialist SHS¹ meeting or exceeding BASHH HIV testing coverage guidelines² in eligible attendees³ by PHE region and sexual orientation, England, 2017

PHE region	Number of clinics	All attendees n, (% of clinics)		Gay and bisexual men n, (% of clinics)		Heterosexual men n, (% of clinics)		Heterosexual women n, (% of clinics)	
East Midlands	16	1	(6%)	15	(94%)	5	(31%)	0	(0%)
East of England	22	4	(18%)	21	(95%)	15	(68%)	4	(18%)
London	38	8	(21%)	33	(87%)	21	(55%)	5	(13%)
North East	14	0	(0%)	14	(100%)	3	(21%)	0	(0%)
North West	35	1	(3%)	29	(83%)	11	(31%)	1	(3%)
South East	33	3	(9%)	30	(91%)	17	(52%)	3	(9%)
South West	25	7	(28%)	23	(92%)	9	(36%)	5	(20%)
West Midlands	19	0	(0%)	17	(89%)	2	(11%)	0	(0%)
Yorkshire and Humber	19	2	(11%)	16	(84%)	8	(42%)	2	(11%)
England	221	26	(12%)	198	(90%)	91	(41%)	20	(9%)

¹ Specialist SHS refers to level 3 sexual health services (including genitourinary medicine (GUM) and integrated GUM/sexual and reproductive health (SRH)).

² Meets or exceeds 80% HIV test coverage.

³ Eligible SHS attendee (service-level analysis): any patient attending a SHS at least once during a calendar year; excluding those patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being and related for reproductive health care only.

Appendix 11: HIV test offer, test, coverage and positivity in eligible¹ gay and bisexual male attendees at Specialist SHS² – previous HIV tests England, 2017

Attendance history & frequency of previous testing	Eligible attendees ²	Offered (Offer %)		Tested (Coverage %)		New diagnoses (Positivity %)	
4+ HIV tests in previous year ³	2,004	1,995	99.6	1,991	99.4	7	0.3
2-3 HIV tests in previous year ³	17,921	17,587	98.1	17,447	97.4	75	0.3
1 HIV test in previous year ³	28,590	26,921	94.2	26,366	92.2	99	0.3
Last HIV test 1-2 years ago ⁴	11,847	10,947	92.4	10,498	88.6	54	0.5
No previous HIV test	61,609	55,294	89.7	52,246	84.8	785	3.7
Total	121,971	112,744	92.0	108,548	89.0	1,020	0.9

¹ Eligible SHS attendee: any patient attending a SHS at least once during a calendar year; excluding those patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being and related for reproductive health care only.

² Specialist SHS refers to level 3 sexual health services (including genitourinary medicine (GUM) and integrated GUM/sexual and reproductive health (SRH)).

³ Previous year – 43 -365 days previous to the last test in a calendar year or date of new diagnosis.

⁴ One to two years ago - at least one test in the 366-730 days and no tests in the 43-365 days previous to the last test in a calendar year or date of new diagnosis.

Appendix 12: HIV test offer, coverage and positivity in attendees at all SHS – gender, sexual orientation and age group, England, 2017

(a) Gay and bisexual men

Age group	Eligible attendees ¹	Offered (Offer %)		Tested (Coverage %)		New diagnoses (Positivity %)	
15-24	29,843	27,691	92.8	26,719	89.5	189	0.7
25-24	50,750	47,379	93.4	45,846	90.3	424	0.9
35-49	34,858	31,882	91.5	30,614	87.8	313	1.0
50-64	12,412	11,124	89.6	10,580	85.2	103	1.0
65+	2,680	2,395	89.4	2,269	84.7	8	0.4
Total²	130,617	120,524	92.3	116,071	88.9	1,038	0.9

(b) Heterosexual men

Age group	Eligible attendees ¹	Offered (Offer %)		Tested (Coverage %)		New diagnoses (Positivity %)	
15-24	174,327	155,326	89.1	129,381	74.2	37	0.0
25-24	197,704	180,575	91.3	157,654	79.7	89	0.1
35-49	100,886	90,182	89.4	78,142	77.5	182	0.2
50-64	32,447	28,223	87.0	24,066	74.2	92	0.4
65+	6,296	5,073	80.6	4,206	66.8	12	0.3
Total²	512,327	459,823	89.8	393,704	76.8	412	0.1

(c) Heterosexual women

Age group	Eligible attendees ¹	Offered (Offer %)		Tested (Coverage %)		New diagnoses (Positivity %)	
15-24	443,403	352,807	79.6	234,726	52.9	56	0.0
25-24	344,513	276,784	80.3	204,682	59.4	107	0.1
35-49	167,242	127,959	76.5	90,235	54.0	182	0.2
50-64	33,237	25,640	77.1	19,101	57.5	70	0.4
65+	2,875	1,883	65.5	1,408	49.0	10	0.7
Total²	996,358	788,731	79.2	551,773	55.4	425	0.1

¹ Eligible SHS attendee: any patient attending a SHS at least once during a calendar year; excluding those patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being and related for reproductive health care only.

² Includes those aged 0-15 years and those with unknown age.

Appendix 13: HIV test offer, test, coverage and positivity in eligible heterosexual black Africans attendees at Specialist SHS¹ – previous HIV tests England, 2017

Attendance history & frequency of previous testing	Eligible attendees ²	Offered (Offered %)		Tested (Coverage %)		New Diagnoses (Positivity %)	
4+ HIV tests in previous year ³	75	74	98.7	74	98.7	0	0.0
2-3 HIV tests in previous year ³	2,285	2,217	97.0	2,161	94.6	<5	<0.2
1 HIV test in previous year ³	8,416	7,818	92.9	7,270	86.4	<10	<0.1
Last HIV test 1-2 years ago ⁴	4,823	4,259	88.3	3,749	77.7	<5	<0.1
No previous HIV test	42,321	35,515	83.9	29,221	69.0	273	0.9
Total	57,920	49,883	86.1	42,475	73.3	283	0.7

¹ Specialist SHS refers to level 3 sexual health services (including genitourinary medicine (GUM) and integrated GUM/sexual and reproductive health (SRH)).

² Eligible SHS attendee: any patient attending a SHS at least once during a calendar year; excluding those 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 for reproductive health care only.

³ Previous year - 43-365 days previous to the last test in a calendar year or date of new diagnosis.

⁴ One to two years ago - at least one test in the 366-730 days and no tests in the 43-365 days previous to the last test in a calendar year or date of new diagnosis.

Appendix 14: HIV test offer, coverage and positivity in eligible heterosexuals at all SHS – ethnicity and country of birth, England, 2017

Category	Eligible attendees ¹	Offered (Offer %)		Tested (Coverage %)		New diagnoses (Positivity %)	
Black African and not born in a HPC ²	35,766	30,087	84.7	25,154	70.3	69	0.3
Black African and born in HPC ²	31,580	26,941	85.3	22,877	72.4	225	1.0
Black African (total)	67,346	57,028	84.7	48,031	71.3	294	0.6
Born in HPC ² and not black African	27,507	23,660	86.0	19,666	71.5	70	0.4
Born in HPC ² (total)	59,087	50,601	85.6	42,543	72.0	295	0.7
Black African or born HPC ²	94,853	80,688	85.1	67,697	71.4	364	0.5

¹ Eligible SHS attendee: any patient attending a SHS at least once during a calendar year; excluding those patients known to be HIV positive or for whom an HIV test was not appropriate, or for whom the attendance was reported as being and related for reproductive health care only.

² HPC: High prevalence country where HIV prevalence (>1%) a full list of these countries can be found in appendix 2.

Appendix 15: HIV test offer, coverage and diagnoses in partner notified contacts attending all SHS, England, 2013 to 2017

Year	PN contacts	Offered (Offered %)		Tested (Coverage %)		Contacts diagnosed (%) ¹		Total New diagnoses ²	PN test ratio ³
2013	1,976	1,641	83.0	1,607	81.3	101	6.3	3,125	0.5
2014	2,171	1,798	82.8	1,777	81.9	98	5.5	3,194	0.6
2015	2,034	1,773	87.2	1,745	85.8	92	5.3	2,895	0.6
2016	2,212	1,896	85.7	1,861	84.1	72	3.9	2,361	0.8
2017	1,903	1,626	85.4	1,603	84.2	69	4.3	1,956	0.8

¹ Number of diagnoses through partner notification / number of partner notified contacts (x100).

² All new HIV diagnoses in SHS.

³ PN test ratio: number of partner notified contacts to number of new diagnoses each year.

Appendix 16: Community HIV testing providers who responded to the 2018 PHE community HIV testing survey

Actionplus Foundation, Addaction Lincolnshire, Africa Advocacy Foundation, Ambition – Sefton, BDP, BHA, Best Hope, Bournemouth Drug & Alcohol Services, CGL Gloucestershire, CGL Halton, CGL Manchester, CGL Spectrum (Hertfordshire), CGL Warrington, Cheshire East Substance Misuse Service, Derby Drug and Alcohol Recovery Service, Dhiverse, Dudley Pharmacies, Embrace Life & LGBT Links Luton, Embrace UK, Essex STaRS, GMI, HertsAid, Humankind, Inclusion Recovery, Inspire, LASS, LGBT+ Foundation, Martin Fisher Foundation, Metro, Midlands Partnership NHS Foundation Trust, NAZ, Plus Me, Positive East, Positive Health (Lincs), Recovery Nottingham, Renaissance at Drugline Lancashire, SHIP BBV, Sahir House, Shine and Mesmac, Somerset Drug and Alcohol service (Turning-Point), South Gloucestershire Drug and Alcohol Services, Spectra, Summit House Support, THT, Thames Valley Positive Support, The Brunswick Centre, The Eddystone Trust, The High Life, Trade Sexual Health and Yorkshire MESMAC

Appendix 17: Tests, reactives and reactivity in community settings – gender, sexual orientation, ethnic group, country of birth, HIV test history, age group and prevalence band, 2017

Breakdown category		Tests	Reactives	Reactivity %
Gender	Cis Male	21,594	96	0.4
	Cis Female	7,210	20	0.3
	Trans+ Male	101	0	0.0
	Trans+ Female	65	<5	<7.7
	Other	180	0	0.0
	Unknown	2,034	<20	<1.0
Sexual orientation	Heterosexual	15,264	41	0.3
	MSM	10,364	67	0.6
	WSW	405	0	0.0
	Unknown	5,151	20	0.4
Ethnic group	Black African	3,479	14	0.4
	Black Caribbean	561	<5	<0.9
	Black Other	559	<5	<0.9
	White	18,753	73	0.4
	Asian	2,644	<20	<0.8
	Mixed / Other	1,820	15	0.8
	Unknown	3,368	13	0.4
Country of birth	UK	11,856	35	0.3
	High prevalence country	1,912	9	0.5
	Other	3,588	26	0.7
	Unknown	13,828	58	0.4
HIV test history	Previously tested for HIV	11,729	65	0.6
	Never tested for HIV	6,626	19	0.3
	Unknown	12,829	44	0.3
Age group	Under 25 years	6,036	20	0.3
	25 years and over	22,449	83	0.4
	Unknown	2,699	25	0.9
Local authority prevalence band	Low	11,463	52	0.5
	High	9,496	35	0.4
	Extremely High	6,694	30	0.4
	Unknown	3,531	11	0.3
Total		31,184	128	0.4

Appendix 18: List of data sources and associated measures

Data source	Description	Geographical coverage	Measures
HIV and AIDS Reporting System (HARS)	National HIV surveillance: Linked dataset of people newly diagnosed and seen for HIV care, includes the Recent Infection Testing Algorithm.	National, England, Wales and Northern Ireland (RITA)	New HIV and AIDS diagnoses, recent infection, late HIV diagnoses, 1-year mortality, people seen for HIV care, retention in HIV care, treatment coverage, virological suppression, diagnosed HIV prevalence, treatment as prevention
Multi-parameter Evidence Synthesis (MPES)	Bayesian multi-parameter evidence synthesis model, reviewed each year to take into account changes in data sources	National, England	Diagnosed and undiagnosed HIV prevalence among the general population and key groups
CD4 back-calculation model	CD4-based Bayesian back-calculation model	England	Undiagnosed HIV prevalence and incidence among gay and bisexual men
Probable country of acquisition	CD4 decline model to estimate country of infection for those born abroad	National	Probable country of acquisition by exposure group
National Study of HIV in Pregnancy and Childhood	Data on pregnant women living with HIV and their children from the Institute of Child Health	National	Mother-to-child transmission of HIV
Office for National Statistics	Population data	National	UK population, mortality rates, well-being figures
GUMCAD STI Surveillance system	National STI surveillance: disaggregate data on diagnoses made and services provided by sexual health services	England	HIV test offer, acceptance and new diagnoses among attendees
Unlinked anonymous monitoring survey of people who inject drugs	Annual survey carried out in specialist drug services with a self-completed questionnaire and dried blood spot sample.	England, Wales and Northern Ireland	Self-reported uptake of HIV testing and HIV prevalence in survey responders
Sentinel surveillance of blood borne viruses	Laboratory surveillance of blood borne viruses testing and diagnoses	England	HIV tests and positive results in tests sent to participating laboratories
Health and justice indicators of performance	National surveillance of burden of disease, patient needs and the quality of health services in prisons	England	HIV test offer, acceptance and new diagnoses among new receptions and transfers

Data source	Description	Geographical coverage	Measures
National HIV self-sampling service	National surveillance of self-sampling testing in local authorities participating in the service	England	HIV test kits returned and reactivities
Infectious disease in pregnancy screening	National surveillance of BBV testing in antenatal care	England	HIV test offer, acceptance and new diagnoses among women presenting to antenatal care
NHS Blood and Transplant / PHE	National surveillance of testing in blood, tissue and deceased organ donors	National	HIV tests and confirmed positives among donors
PHE community HIV testing survey	Annual survey of HIV testing in community settings	England	HIV tests and reactivities by survey responders
Biosure	Holds regulatory approval to sell self-testing kits	England	HIV self-testing kits purchased