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Annual report from the sentinel surveillance study of blood borne virus testing in England: Supplementary tables for January to December 2017

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The sentinel surveillance of blood borne virus testing began in 2002, with the aim of supplementing the routine surveillance of hepatitis. Information on the testing carried out in participating centres is collected irrespective of test result and can therefore also be used as a basis for estimating prevalence among those tested. These data have enhanced our knowledge and understanding of hepatitis testing, in terms of who is being tested and from which service types individuals are accessing testing, and also in interpreting trends in the number of positive individuals identified over time. In 2017, sentinel surveillance captured front-line testing for hepatitis A, B, C and HIV, covering approximately 40% of the population, and over 80% of the population from all 9 PHECs tested for hepatitis D, E and HTLV.

Changes to data processing means that we are now able to present the number of tests conducted alongside the number of individuals tested within a year, The proportion positive is calculated among individuals tested.

1. Hepatitis A IgM testing

Supplementary Table 1. Number of individuals tested, and testing positive, for anti-HAV IgM in participating centres, January – December 2017*

PHE centre	Number of individuals tested	Number positive (%)
East of England	5,154	30 (0.6)
London	15,183	256 (1.6)
North East	1,205	6 (0.5)
North West	4,530	56 (1.2)
South East	5,561	15 (0.3)
South West	4,083	34 (0.8)
West Midlands	2,543	18 (0.7)
East Midlands	4,203	21 (0.5)
Yorkshire and Humber	3,593	16 (0.4)
Unknown	45	0 (0.0)

*Excludes 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. An individual can test in more than one PHE centre.

Supplementary Table 2. Number of individuals tested, and testing positive, for anti-HAV IgM in participating centres, January - December 2017*†.

Age group (years)	Female		Male		Unknown		Total	
	Number of individuals tested	Number positive (%)	Number of individuals tested	Number positive (%)	Number of individuals tested	Number positive (%)	Number of individuals tested	Number positive (%)
Under 1	76	0 (0.0)	126	0 (0.0)	0	0 (0.0)	202	0 (0.0)
1-14	409	10 (2.4)	456	4 (0.9)	1	1 (100)	866	15 (1.6)
15-24	2,321	10 (0.4)	2,148	32 (1.5)	2	0 (0.0)	4,471	42 (0.9)
25-34	4,873	22 (0.5)	4,568	144 (3.2)	12	0 (0.0)	9,453	166 (1.8)
35-44	3,750	9 (0.2)	4,712	76 (1.6)	8	0 (0.0)	8,470	85 (1.0)
45-54	3,361	10 (0.3)	4,499	50 (1.1)	3	0 (0.0)	7,863	60 (0.8)
55-64	2,910	5 (0.2)	3,424	24 (0.7)	3	0 (0.0)	6,337	29 (0.5)
≥65	4,086	19 (0.5)	4,273	34 (0.8)	7	0 (0.0)	8,366	53 (0.6)
Unknown	18	0 (0.0)	21	0 (0.0)	11	2 (18.2)	50	2 (4.0)
Total	21,804	85 (0.4)	24,227	364 (1.5)	47	3 (6.4)	46,078	452 (1.0)

* Excludes 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. Where individuals have tested more than once, age at test was calculated using an individual's most recent test.

Supplementary Table 3. Number of individuals tested and testing positive for anti-HAV IgM by ethnic group, January – December 2017*

Ethnic group	Number of individuals tested	Number positive (%)
Asian or Asian British origin	5,567	44 (0.8)
Black or Black British origin	1,478	5 (0.3)
Other and/or mixed origin	1,435	13 (0.9)
White or White British origin	35,259	351 (1.0)
Unknown ethnic origin	2,339	39 (1.7)
Total	46,078	452 (1.0)

* Excludes 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.

2. Hepatitis B surface antigen testing

a. Antenatal HBsAg screening

Supplementary Table 4. Number of tests, women tested, and testing positive for HBsAg through antenatal screening in participating centres, January – December 2017*

PHE centre	Number of tests	Number of individuals tested	Number positive (%)
East of England	6,933	6,628	10 (0.1)
London	31,286	29,733	122 (0.4)
North East	4,246	4,028	10 (0.2)
North West	24,323	23,442	50 (0.2)
South East	18,468	17,778	37 (0.2)
South West	14,880	14,233	28 (0.2)
East Midlands	21,389	20,704	46 (0.2)
West Midlands	11,130	10,448	49 (0.4)
Yorkshire and Humber	13,042	12,485	32 (0.3)
Unknown	3	3	0 (0.0)

*Excludes dried blood spot testing, oral fluid testing, reference testing and testing from hospitals referring all samples. Only women aged 12-49 years old are included. Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional. Number of tests includes all test until a person is diagnosed positive, no tests are counted after a positive test, a person can be counted more than once. An individual can test in more than one PHE centre. The proportion positive is calculated using number of individuals.

b. Non-antenatal HBsAg screening

Supplementary Table 5. Number of tests, individuals tested, and individuals testing positive for HBsAg in participating centres (excluding antenatal testing), January – December 2017*

PHE centre	Number of tests	Number of individuals tested	Number positive (%)
East of England	30,467	23,459	134 (0.6)
London	169,682	139,687	1,842 (1.3)
North East	19,529	16,619	126 (0.8)
North West	68,621	52,768	408 (0.8)
South East	31,289	24,595	170 (0.7)
South West	32,341	26,433	208 (0.8)
East Midlands	30,542	26,819	184 (0.7)
West Midlands	14,876	11,656	212 (1.8)
Yorkshire and Humber	38,777	34,096	255 (0.7)
Unknown	241	233	4 (1.7)

* Excludes 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. Number of tests includes all tests until a person is diagnosed positive, no tests are counted after a positive test, a person can be counted more than once. An individual can test in more than one PHE centre. The proportion positive is calculated using number of individuals.

Supplementary Table 6. Age and gender of individuals tested for HBsAg in participating centres (excluding antenatal testing), January - December 2017*.

Age group (years)	Female			Male			Unknown			Total		
	Number of tests	Number of individuals tested	Number positive (%)	Number of tests	Number of individuals tested	Number positive (%)	Number of tests	Number of individuals tested	Number positive (%)	Number of tests	Number of individuals tested	Number positive (%)
Under 1	319	291	2 (0.6)	406	371	3 (0.8)	1	1	0 (0.0)	726	663	5 (0.8)
1-14	2,514	2,268	17 (0.7)	2,850	2,490	26 (1.0)	3	3	0 (0.0)	5,367	4,761	43 (0.9)
15-24	28,277	26,204	121 (0.5)	22,368	20,659	195 (0.9)	96	82	0 (0.0)	50,741	46,945	316 (0.7)
25-34	60,231	54,377	428 (0.8)	44,676	40,177	658 (1.6)	184	149	3 (2.0)	105,091	94,703	1,089 (1.1)
35-44	43,991	38,245	343 (0.9)	42,021	36,208	609 (1.7)	166	128	0 (0.0)	86,178	74,581	952 (1.3)
45-54	26,040	20,950	227 (1.1)	34,912	27,404	404 (1.5)	69	54	0 (0.0)	61,021	48,408	631 (1.3)
55-64	21,991	16,301	97 (0.6)	28,700	20,181	196 (1.0)	53	31	0 (0.0)	50,744	36,513	293 (0.8)
≥65	32,318	21,900	83 (0.4)	43,219	26,219	128 (0.5)	79	37	0 (0.0)	75,616	48,156	211 (0.4)
Unknown	195	186	3 (1.6)	249	239	0 (0.0)	437	430	0 (0.0)	881	855	3 (0.4)
Total	215,876	180,722	1,321 (0.7)	219,401	173,948	2219 (1.3)	1,088	915	3 (0.3)	436,365	355,585	3,543 (1.0)

* Excludes dried blood spot, oral fluid, 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. Number of tests includes all tests until a person is diagnosed positive, no tests are counted after a positive test, a person can be counted more than once. Where individuals have tested more than once, age at test was calculated using an individual's most recent test. The number of females tested may include some undergoing routine antenatal screening who could not be identified as such from the information provided. The proportion positive is calculated using number of individuals.

3. Hepatitis C antibody testing

Supplementary Table 7. Number of tests, individuals tested, and individuals testing positive for anti-HCV in participating centres, January – December 2017*

PHE centre	Number of tests	Number of individuals tested	Number positive (%)
East of England	21,715	15,649	193 (0.9)
London	169,012	146,626	1,824 (1.1)
North East	21,432	18,034	351 (1.6)
North West	66,504	48,958	747 (1.1)
South East	34,302	27,324	499 (1.5)
South West	29,084	25,021	523 (1.8)
East Midlands	27,587	24,180	319 (1.2)
West Midlands	13,863	11,150	140 (1.0)
Yorkshire and Humber	34,466	31,013	383 (1.1)
Unknown	234	225	3 (1.3)

*Excludes 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. Number of tests includes all tests until a person is diagnosed positive, no tests are counted after a positive test, a person can be counted more than once. An individual can test in more than one PHE centre. The proportion positive is calculated using number of individuals.

Supplementary Table 8. Age and gender of individuals tested for anti-HCV in participating centres, January - December 2017*.

Age group (year)	Female			Male			Unknown			Total		
	Number of tests	Number of Individuals tested	Number positive (%)	Number of tests	Number of Individuals tested	Number positive (%)	Number of tests	Number of Individuals tested	Number positive (%)	Number of tests	Number of Individuals tested	Number positive (%)
1-14	2,211	1,994	6 (0.3)	2,422	2,093	14 (0.7)	2	2	0 (0.0)	4,635	4,089	20 (0.5)
15-24	23,229	21,359	75 (0.4)	24,703	21,849	102 (0.5)	113	88	1 (1.1)	48,045	43,296	178 (0.4)
25-34	44,445	40,225	424 (1.1)	54,365	46,498	652 (1.4)	186	145	2 (1.4)	98,996	86,868	1,078 (1.2)
35-44	36,195	32,068	386 (1.2)	49,494	41,737	1,034 (2.5)	173	139	5 (3.6)	85,862	73,944	1,425 (1.9)
45-54	25,024	20,967	331 (1.6)	39,907	32,175	914 (2.8)	79	65	1 (1.5)	65,010	53,207	1,246 (2.3)
55-64	20,077	15,929	212 (1.3)	28,289	21,686	446 (2.1)	48	35	1 (2.9)	48,414	37,650	659 (1.8)
≥65	28,477	21,398	126 (0.6)	37,835	26,111	239 (0.9)	53	29	0 (0.0)	66,365	47,538	365 (0.8)
Unknown	176	169	2 (1.2)	262	252	9 (3.6)	434	427	0 (0.0)	872	848	11 (1.3)
Total	179,834	154,109	1,562 (1.0)	237,277	192,401	3,410 (1.8)	1,088	930	10 (1.1)	418,199	347,440	4,982 (1.4)

* Excludes dried blood spot, oral fluid reference testing and testing from hospitals referring all samples. Individuals aged less than one year are excluded since positive tests in this age group may reflect the presence of passively-acquired maternal antibody rather than true infection. Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional. Number of tests includes all tests until a person is diagnosed positive, no tests are counted after a positive test, a person can be counted more than once. Where individuals have tested more than once, age at test was calculated using an individual's most recent test. The proportion positive is calculated using number of individuals.

4. Hepatitis D total antibody testing

Supplementary Table 9. Number of individuals tested, and testing positive, for HDV-TA and/or HDV IgM in participating centres, January – December 2017*

PHE centre	Number of individuals tested	Number positive (%)
East of England	551	8 (1.5)
London	1,151	40 (3.5)
North East	122	4 (3.3)
North West	417	21 (5.0)
South East	811	19 (2.3)
South West	287	9 (3.1)
East Midlands	235	5 (2.1)
West Midlands	241	12 (5.0)
Yorkshire and Humber	428	11 (2.6)
Unknown	16	0 (0.0)

* Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional. An individual can test in more than one PHE centre.

5. Hepatitis E IgM testing

Supplementary Table 10. Number of individuals tested, and testing positive, for anti-HEV IgM in participating centres, January – December 2017*

PHE centre	Number of individuals tested	Number positive (%)
East of England	3,027	67 (2.2)
London	3,968	110 (2.8)
North East	1,634	38 (2.3)
North West	306	79 (25.8)
South East	1,753	58 (3.3)
South West	1,828	81 (4.4)
East Midlands	1,632	23 (1.4)
West Midlands	4,149	83 (2.0)
Yorkshire and Humber	2,332	68 (2.9)
Unknown	130	7 (5.4)

* Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional. An individual can test in more than one PHE centre.

6. HIV testing

a. Antenatal HIV screening

Supplementary Table 11. Number of tests, women tested (aged 16-49 years), and testing positive for HIV through antenatal screening in participating centres, January – December 2017*

PHE centre	Number of tests	Number of individuals tested	Number positive (%)
East of England	6,788	6,572	3 (0.05)
London	42,443	40,027	45 (0.1)
North East	4,838	4,595	3 (0.1)
North West	10,384	10,031	15 (0.1)
South East	18,239	17,641	5 (0.03)
South West	0	0	0 (0.0)
East Midlands	20,996	20,471	15 (0.1)
West Midlands	10,994	10,418	22 (0.2)
Yorkshire and Humber	13,060	12,501	14 (0.1)
Unknown	1	1	0 (0.0)

*Excludes dried blood spot testing, oral fluid testing, reference testing and testing from hospitals referring all samples. Only women aged 16-49 years old are included. Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional. Number of tests includes all tests until a person is diagnosed positive, no tests are counted after a positive test, a person can be counted more than once. An individual can test in more than one PHE centre. The proportion positive is calculated using number of individuals.

b. Non-antenatal HIV testing

Supplementary Table 12. Number of tests, adults (16+ years old) tested, and, adults (16+ years old) testing positive for HIV in participating centres (excluding antenatal testing), January – December 2017*

PHE centre	Number of tests	Number of individuals tested	Number positive (%)
East of England	20,821	18,300	17 (0.1)
London	396,347	338,174	1,932 (0.6)
North East	29,063	24,977	73 (0.3)
North West	91,398	71,645	387 (0.5)
South East	60,983	51,689	331 (0.6)
South West	14	7	1 (14.3)
East Midlands	43,005	37,478	164 (0.4)
West Midlands	13,000	11,745	143 (1.2)
Yorkshire and Humber	49,844	44,049	224 (0.5)
Unknown	424	409	1 (0.2)

*Excludes 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. Number of tests includes all tests until a person is diagnosed positive, no tests are counted after a positive test, a person can be counted more than once. An individual can test in more than one PHE centre. The proportion positive is calculated using number of individuals.

Supplementary Table 13. Age and gender of adults (16+ years old) tested for HIV in participating centres (excluding antenatal testing), January - December 2017*

Age group (years)	Female			Male			Unknown			Total		
	Number of tests	Number of individuals tested	Number positive (%)	Number of tests	Number of individuals tested	Number positive (%)	Number of tests	Number of individuals tested	Number positive (%)	Number of tests	Number of individuals tested	Number positive (%)
16-24	90,472	78,971	74 (0.1)	61,698	53,317	232 (0.4)	230	177	1 (0.6)	152,400	132,465	307 (0.2)
25-34	123,797	109,623	202 (0.2)	104,932	87,939	684 (0.8)	388	303	3 (10.9)	229,117	197,865	889 (0.4)
35-44	65,671	57,437	215 (0.4)	67,285	55,795	666 (1.2)	223	176	1 (0.6)	133,179	113,408	882 (0.8)
45-54	31,681	27,302	192 (0.7)	45,150	36,496	565 (1.5)	115	83	0 (0.0)	76,946	63,881	757 (1.2)
55-64	20,561	17,022	81 (0.5)	29,294	23,213	218 (0.97)	62	34	1 (2.9)	49,917	40,269	300 (0.7)
≥65	26,503	21,377	28 (0.1)	34,790	26,495	96 (0.4)	52	29	0 (0.0)	61,345	47,901	124 (0.3)
Unknown	462	444	1 (0.2)	1,058	1023	5 (0.5)	475	464	8 (1.7)	1,995	1,931	14 (0.7)
Total	359,147	312,176	793 (0.3)	344,207	284,278	2,466 (0.9)	1,545	1,266	14 (1.1)	704,899	597,720	3,273 (0.5)

* 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. Number of tests includes all tests until a person is diagnosed positive, no tests are counted after a positive test, a person can be counted more than once. Where individuals have tested more than once, age at test was calculated using an individual's most recent test. The number of females tested may include some undergoing routine antenatal screening who could not be identified as such from the information provided. The proportion positive is calculated using number of individuals.

7. HTLV testing

Supplementary Table 14. Number of individuals tested, and testing positive, for HTLV in participating centres, January – December 2017*

PHE centre	Number of individuals tested	Number positive (%)
East of England	927	8 (0.9)
London	3,901	68 (1.7)
North East	757	4 (0.5)
North West	3,535	7 (0.2)
South East	1,071	4 (0.4)
South West	41	4 (9.8)
East Midlands	61	3 (4.9)
West Midlands	536	11 (2.1)
Yorkshire and Humber	980	2 (0.2)
Unknown	194	0 (0.0)

*Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional. An individual can test in more than one PHE centre.

Supplementary Table 15. Number of individuals tested, and testing positive, for HTLV in participating centres, January - December 2017*.

Age group (years)	Female		Male		Unknown		Total	
	Number of individuals tested	Number positive (%)	Number of individuals tested	Number positive (%)	Number of individuals tested	Number positive (%)	Number of individuals tested	Number positive (%)
Under 1	32	0 (0.0)	22	0 (0.0)	0	0 (0.0)	54	0 (0.0)
1-14	113	0 (0.0)	157	2 (1.3)	0	0 (0.0)	270	2 (0.7)
15-24	306	1 (0.3)	373	2 (0.5)	8	1 (12.5)	687	4 (0.6)
25-34	922	8 (0.9)	822	9 (1.1)	13	0 (0.0)	1,757	17 (1.0)
35-44	760	5 (0.7)	848	4 (0.5)	10	0 (0.0)	1,618	9 (0.6)
45-54	934	14 (1.5)	1,201	6 (0.5)	8	2 (25.0)	2,143	22 (1.0)
55-64	967	11 (1.1)	1,407	16 (1.1)	9	1 (11.1)	2,383	28 (1.2)
≥65	1,113	13 (1.2)	1,423	12 (0.8)	7	1 (14.3)	2,543	26 (1.0)
Unknown	23	0 (0.0)	40	0 (0.0)	415	3 (0.7)	478	3 (0.6)
Total	5,170	52 (1.0)	6,293	51 (0.8)	470	8 (1.7)	11,933	111 (0.9)

* Data are de-duplicated subject to availability of date of birth, soundex and first initial. All data are provisional. Where individuals have tested more than once, age at test was calculated using an individual's most recent test.

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Health Protection Report is a national public health bulletin for England and Wales, published by Public Health England. It is PHE's principal channel for the dissemination of laboratory data relating to pathogens and infections/communicable diseases of public health significance and of reports on outbreaks, incidents and ongoing investigations.

Public Health England, Wellington House, 133-155 Waterloo Road, London SE1 8UG

Tel: 020 7654 8000 www.gov.uk/phe

Twitter: [@PHE_uk](https://twitter.com/PHE_uk) Facebook: www.facebook.com/PublicHealthEngland

Queries relating to this document should be directed to:
Immunisation, Hepatitis and Blood Safety Department,
National Infection Service, PHE Colindale,
61 Colindale Avenue, London NW9 5EQ.

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