



Public Health
England

Laboratory reports of hepatitis A and C in England and Wales, April to June 2017

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Laboratory reports of hepatitis A infections: April to June 2017

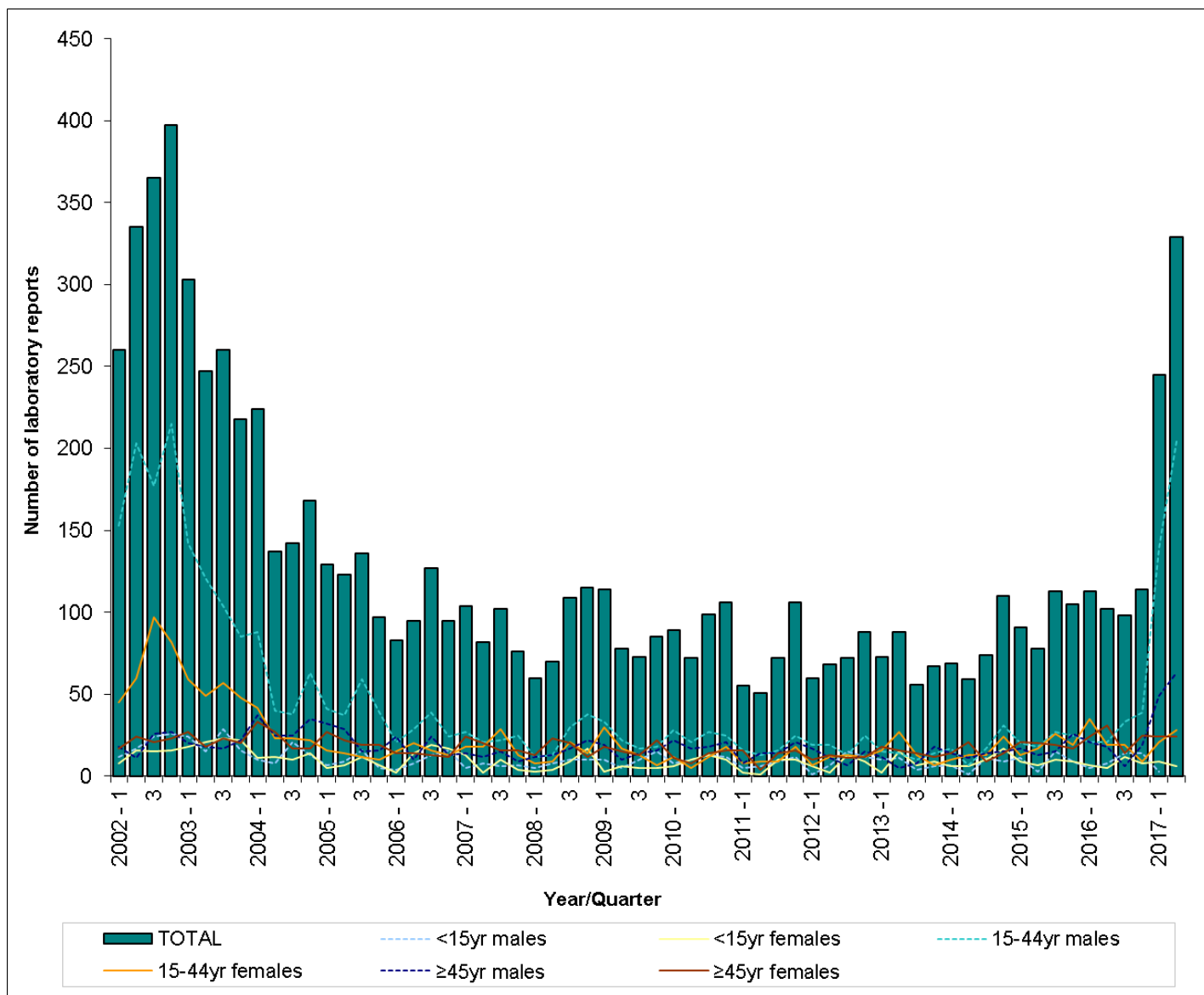
There were a total of 308 laboratory reports of hepatitis A reported to PHE during the second quarter of 2017 (April – June 2017). This is a 25.7% increase on the reports in the first quarter of 2017 (n=245) and triple the second quarter of 2016 (n=103)(figure 1). This continued increase is due to the outbreak of hepatitis A amongst men who have sex with men (MSM) that was first identified in 2016 (1). Over 49.7% (n=153) of the reports were reported from London PHE region followed by 7.8% (n=24) from the South East region and 7.5% (n=23) West Midlands region.

Age group and sex were well reported (>99.9% complete) (table 1). 176 (57.1%) reports were among those aged 25-44 years, 85 (27.6%) reports were among the 45-years-and-over age group. Where known males accounted for 80.8% (248/307) of all reports. The majority of reports in the 15-44 years age group were in males (86.9%). Males also accounted for the majority of reports (70.2%) in the over-45-years age group. Females accounted for the majority of reports in the under-15s (60%).

Table 1. Laboratory reports of hepatitis A in England and Wales, April–June 2017

Age group	Female	Male	Unknown	Total
1-4 years	1	2		3
5-9 years	3	2		5
10-14 years	2			2
15-24 years	5	32		37
25-34 years	14	96		110
35-44 years	9	57		66
45-54 years	5	30	1	36
55-64 years	6	10		16
>65 years	14	19		33
Total	59	248	1	308

Figure 1. Laboratory reports of hepatitis A by age and sex (England and Wales), April to June 2017



Reference laboratory confirmation and phylogeny of hepatitis A infection

Of the 308 patients notified as having acute HAV infection during the second quarter of 2017, 249 had samples forwarded to the Virus Reference Department for confirmation. Thirty-two of the patients were not confirmed to have acute HAV infection. The remaining 217 patients were confirmed to have acute HAV infection. In addition 64 patients were confirmed to have acute HAV infection that had not been reported through the laboratory reporting system although all the cases from England were recorded in HPzone.

A total of 277 patients could be genotyped over this period; 245 were genotype IA (88.4%), 19 were genotype IB (6.9%) and 13 were genotype IIIA (4.7%). Of these samples 47 were associated with travel (17%), 52 had no travel history (18.8%), 163 were MSM (58.8%) and 15 had no information (5.4%).

This information is presented as a phylogenetic tree. Each sequence is represented by a dot with the patient region and the week of sampling in brackets with the exception of sequences VRD_521_2016 (Event 1 – strain 1), RIVM-HAV16-090 (Event 2 – strain 2) and V16-25801 (Event 3 – strain 3). These three distinct genotype IA strains were observed in large numbers in this quarter and have been represented in the tree by region and the number of cases observed; the breakdown of week, risk and region is represented in figures 3, 4 and 5.

Figure 2. Phylogenetic tree of genotype IA, IB, and IIIA sequences April to June 2017

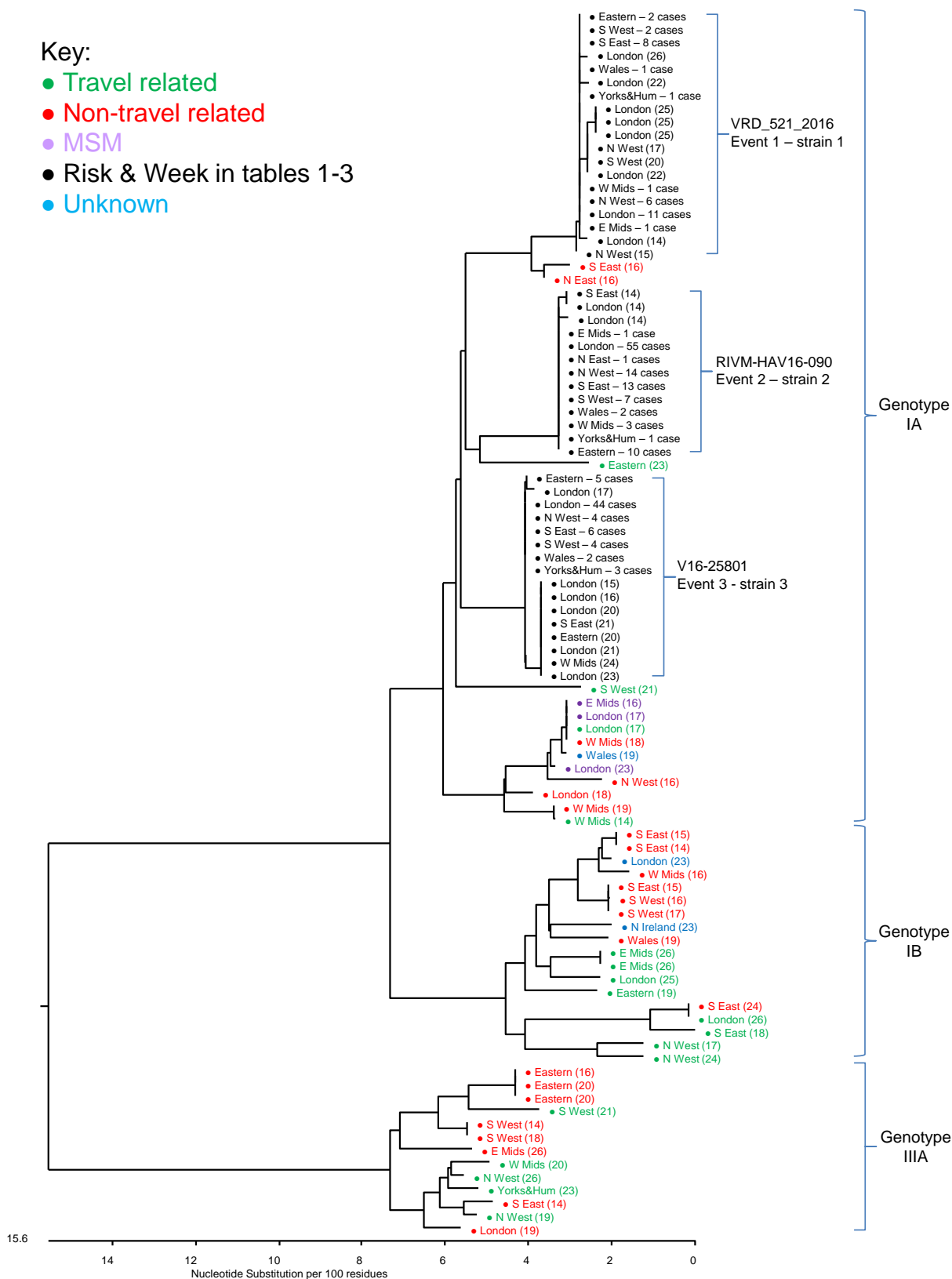


Figure 3. Weekly distribution of Events 1, 2 and 3

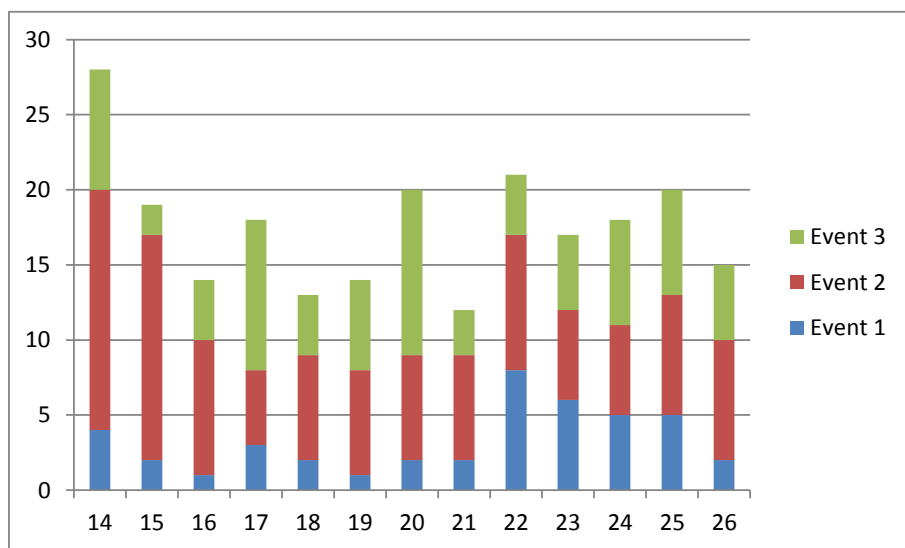


Figure 4. Risk distribution of Events 1, 2 and 3 by week.

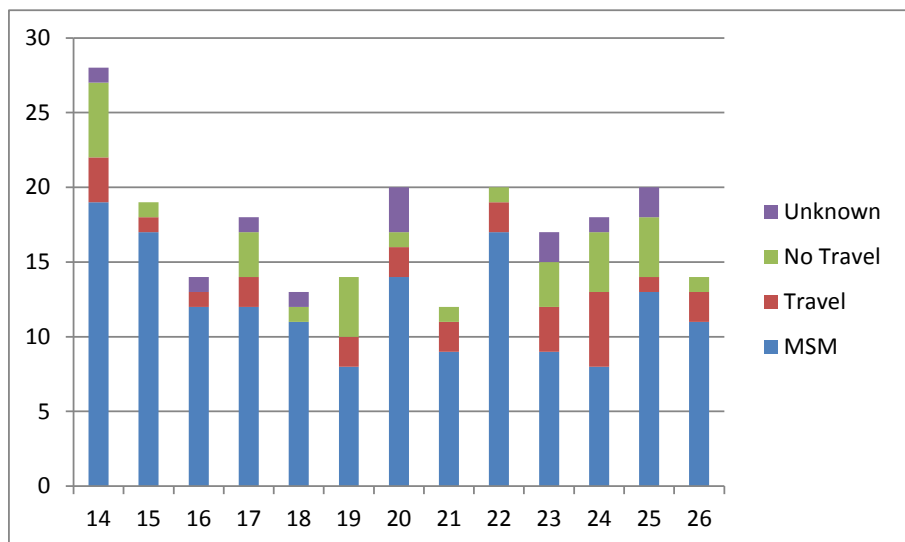
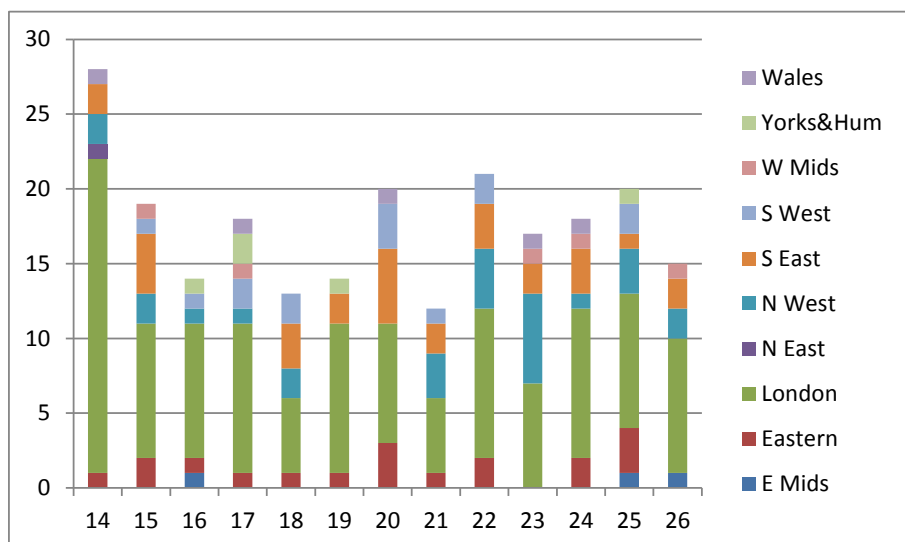


Figure 5. Regional distribution of Events 1, 2 and 3 by week.



Laboratory reports of hepatitis C in England and Wales: April to June 2017

Between April and June 2017 a total of 2565 laboratory reports of hepatitis C were reported to PHE. There was a 9% decrease in the number of reports compared to the first quarter of 2017 (n=2795), and a 15% decrease on the same quarter in 2016 (n=2,959).

Age and sex were well reported (>97.5% complete): known males accounted for 70.6% (1770/2506) of reports which is consistent with previous quarters and years [1]. Adults aged 25-44 years accounted for 53% of the total number of hepatitis C reports. By PHEC region, the highest numbers of reports were from London with 812.

Laboratory reports of hepatitis C in England and Wales, April – June 2017*

Age group	Male	Female	Unknown	Total
1-4 years	2	3	0	5
5-9 years	2	0	0	2
10-14 years	0	0	0	0
15-24 years	47	34	3	84
25-34 years	397	184	5	586
35-44 years	557	189	5	751
45-54 years	434	154	7	595
55-64 years	235	111	0	346
>65 years	92	60	0	152
Unknown	4	1	39	44
Total	1770	736	59	2565

* Provisional data. 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.

Laboratory reports are not reliable for differentiating acute and chronic infections. These laboratory reports include individuals with a positive test for hepatitis C antibody and/or detection of hepatitis C RNA. A positive HCVRNA PCR test will confirm if a patient has a current infection. Of the 2565 reports between April and June 2017, 124 tests had a HCVRNA test type reported of those 122 were HCVRNA positive. Seventy two per cent (1854/2565) reports had specimen source type recorded; general practitioners tested the greatest proportion of individuals (n=645) followed by hospital outpatient (n=628) and hospital inpatient (n=343).

References

1. [Laboratory reports of hepatitis C in England and Wales, 2016](#), *HPR* 11(26)
2. [Laboratory reports of hepatitis A and C: 2017](#), *HPR* 11(31)

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-class 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 are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

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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.

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