Public Health England

Protecting and improving the nation's health

Laboratory-confirmed hepatitis A and C (England and Wales), January to March 2018

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Laboratory reports of hepatitis A infections: January to March 2018

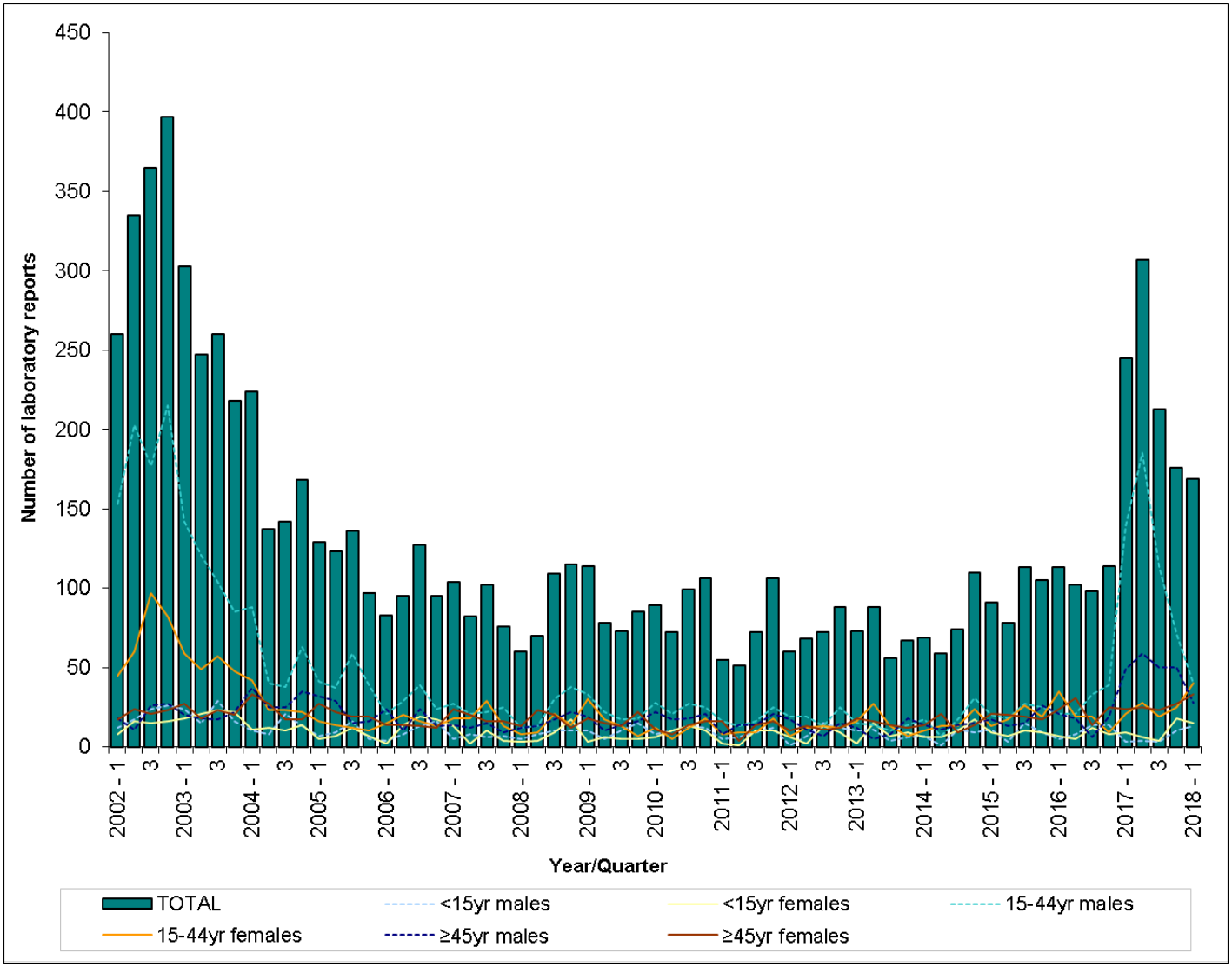
There were a total of 169 laboratory reports of hepatitis A reported to Public Health England (PHE) during the first quarter of 2018 (January - March 2018). This is a 31.0% decrease on the reports in the first quarter of 2017 (n=245), (Figure 1). The increase seen in 2017 was due to the outbreak of hepatitis A amongst men who have sex with men (MSM) that was first identified in 2016 (1).

Over 27.2% (n=46) of the reports were reported from London PHE region followed by 14.8% (n=25) from the South East region and West Midlands region. Age-group and sex were well reported (100% complete) (Table 1). There were 80 (47.3%) reports among those aged 15-44 years, and 61 (36%) reports were among the 45 years and over old-age group. Females accounted for 52% (88/169) of all reports. Males and females in the 15-44 year's age-group had the same number of reports 23.7% (40/169) each. Whereas females accounted for the majority of reports (54.1%) in the over 45 year's age-group and of the under 15s (53.6%).

Table 1: Laboratory reports of hepatitis A in England and Wales, January – March 2018

Age group	Female	Male	Total
1-4 years	2	2	4
5-9 years	8	7	15
10-14 years	5	4	9
15-24 years	18	12	30
25-34 years	18	21	39
35-44 years	4	7	11
45-54 years	5	3	8
55-64 years	12	6	18
>65 years	16	19	35
Total	**88**	**81**	**169**

Figure 1: Laboratory reports of hepatitis A by age and sex (England and Wales), January 2002 to March 2018

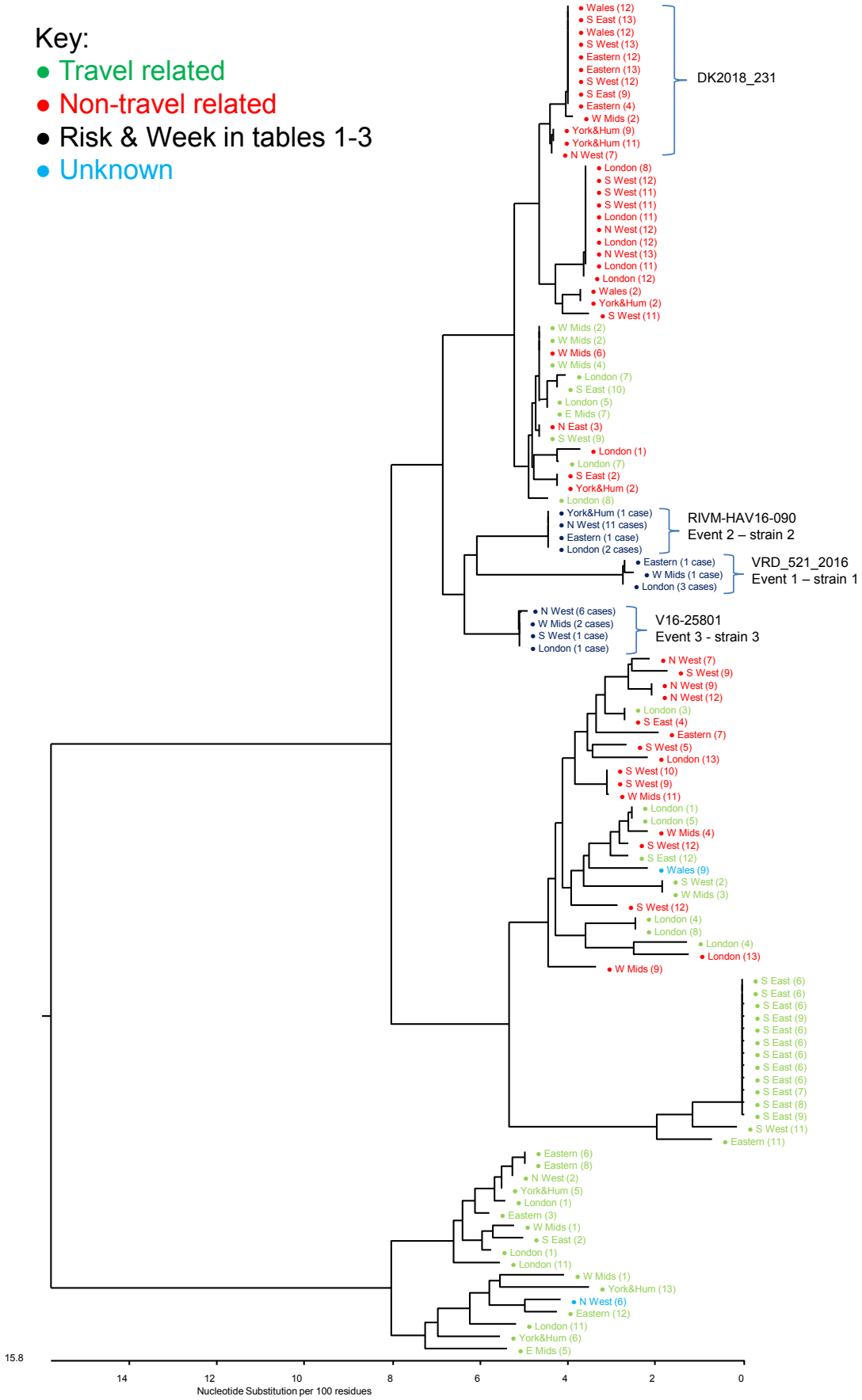


Reference laboratory confirmation and phylogeny of hepatitis A infection

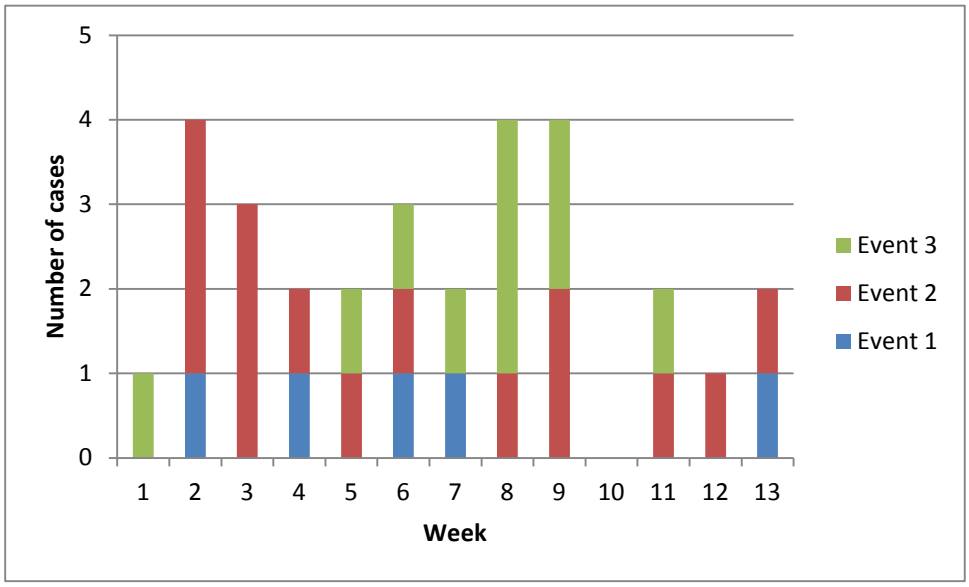
Of the 169 patients notified as having acute HAV infection during the first quarter of 2018, 136 (80.5%) had samples forwarded to the Virus Reference Department for confirmation. Forty (29.4%) of the patients were not confirmed to have acute HAV infection. The remaining 96 patients were confirmed to have acute HAV infection. In addition 33 patients were confirmed to have acute HAV infection that had not been reported through the laboratory reporting system although all the English cases were recorded in HPzone.

Of the 129 patients, a total of 128 could be genotyped over this period; 71 were genotype IA (55.5%), 40 were genotype IB (31.2%) and 17 were genotype IIIA (13.3%). Of these samples 53 were associated with travel (41.4%), 64 had no travel history (50%), seven were MSM (5.5%) and four had no information (3.1%). 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) [1,2,3]. These three distinct genotype IA strains were responsible for the large outbreak in MSM which started in 2016 and were still seen regularly in the first quarter of 2018 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 graphs 1, 2 and 3. The first quarter of 2018 saw multiple non-travel related cases with highly related sequences (DK2018_231) indicating importation of contaminated food products [4].

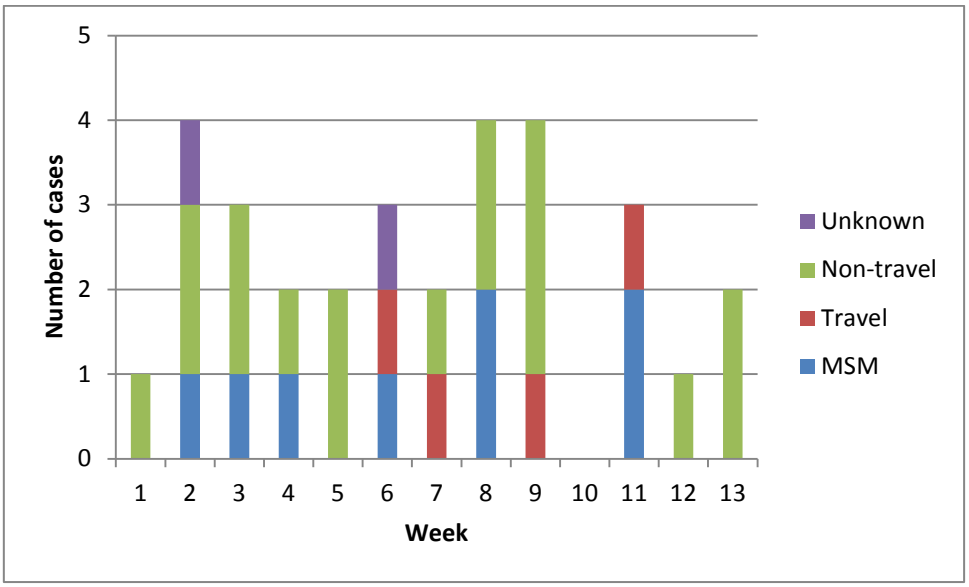
Figure 2. Phylogenetic tree of genotype IA, IB, and IIIA sequences January to March 2018



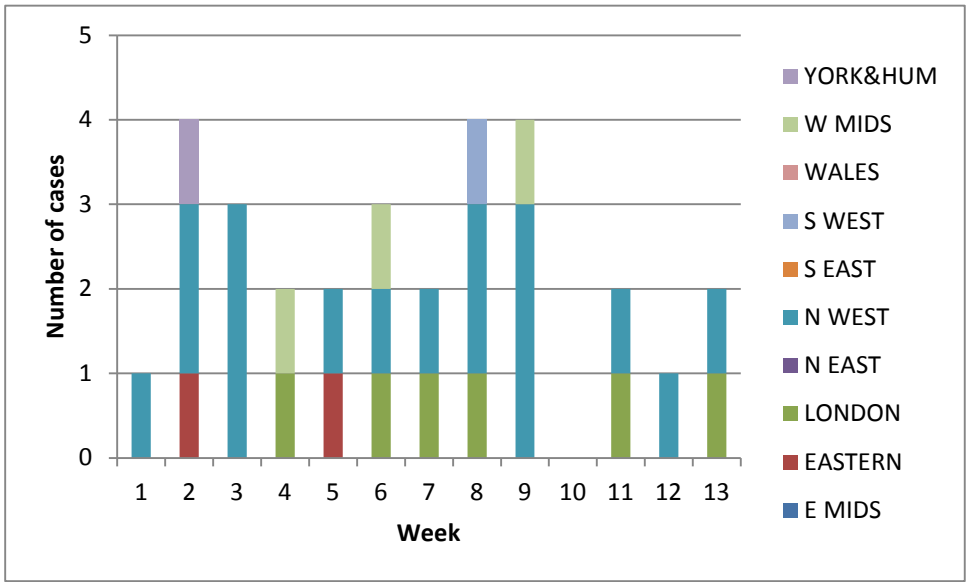
Graph 1: Weekly distribution of Events 1, 2 and 3



Graph 2: Risk distribution of Events 1, 2 and 3 by week.



Graph 3: Regional distribution of Events 1, 2 and 3 by week.



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Laboratory reports of hepatitis C infections: January to March 2018*

Between January and March 2018 a total of 2713 laboratory reports of hepatitis C were reported to PHE. There was a 6.8% increase in the number of reports compared to the fourth quarter of 2017 (n=2540), and a 2.9% decrease on the same quarter in 2017 (n=2795).

Age and sex were well reported (>98.9% complete). Where known males accounted for 68.7% (1865/2685) of reports which is consistent with previous quarters and years [1]. Adults aged 25-44 years accounted for 50.5% of the total number of hepatitis C reports.

Age group	Male	Female	Unknown	Total
1-4 years	5	4	0	9
5-9 years	1	2	0	3
10-14 years	1	1	0	2
15-24 years	51	32	0	83
25-34 years	393	189	3	585
35-44 years	557	222	5	784
45-54 years	474	149	1	624
55-64 years	260	124	3	387
>65 years	119	89	0	208
Unknown	4	0	24	28
Total	**1865**	**812**	**36**	**2713**

* 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 hepatitis C infections. Laboratory reports include individuals with a positive test for hepatitis C antibody, antigen and/or detection of hepatitis C RNA

Reference

1. Laboratory reports of hepatitis C in England and Wales, 2017, Public Health England. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/730074/hpr2718_hcv-nnl.pdf

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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.

About *Health Protection Report*

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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