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Laboratory reports of hepatitis A and C in England and Wales, January to March 2017

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Laboratory reports of hepatitis A in England and Wales (January-March 2017)

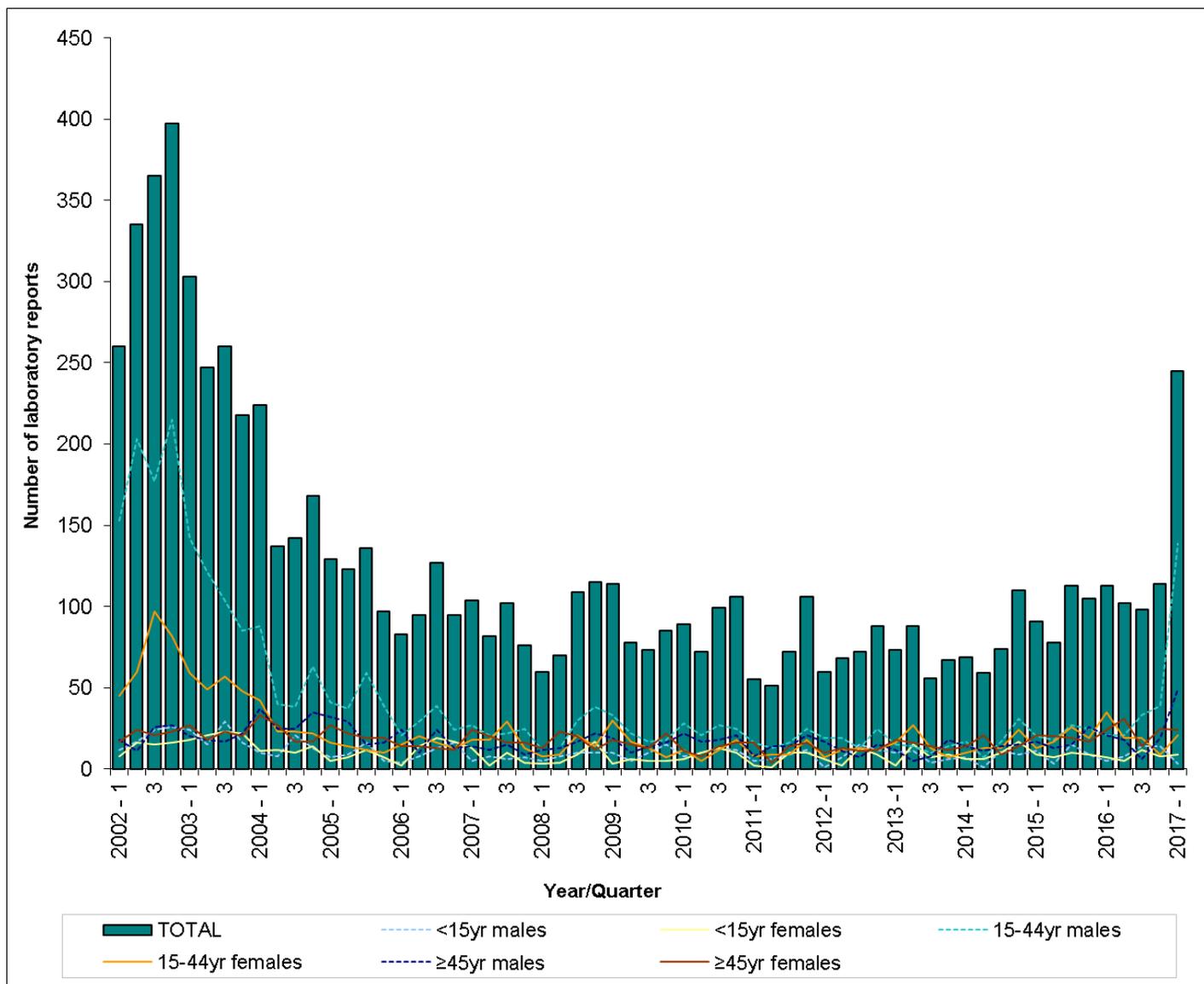
There were a total of 245 laboratory reports of hepatitis A reported to Public Health England (PHE) during the first quarter of 2017 (January – March 2017). This is double the number of reports in the last quarter of 2016 (n=121) and a 119% increase on the January to March quarter in 2016 (n=112) (figure 1). This increase was due to the outbreak of hepatitis A amongst men who have sex with men (MSM) that was first identified in 2016 (1).

Age-group and sex were well reported (100% complete) (table 1). Ninety three (38%) reports were among those aged 25-44 years, 73 (29.8%) reports were among the 45 years and over old-age group and a further 12 (4.9%) reports were from the under 15 year age-group. Males accounted for 78% of all reports. The majority of reports in the 15-44 year's age-group were in males (95%). Males also accounted for the majority of reports (67%) in the over 45 years age-group. Females accounted for the majority of reports in the under 15s (75%).

Laboratory reports of hepatitis A in England and Wales, January – March 2017

Age group	Female	Male	Total
1-4 years	2	2	4
5-9 years	5	-	5
10-14 years	2	1	3
15-24 years	7	22	29
25-34 years	8	85	93
35-44 years	6	32	38
45-54 years	4	23	27
55-64 years	8	9	17
>65 years	12	17	29
Total	54	191	245

Figure 1. Laboratory reports of hepatitis A by age and sex (England and Wales), January 2002 to March 2017



Reference laboratory confirmation and phylogeny of hepatitis A infection

Of the 247ⁱ patients reported as having acute HAV infection during the first quarter of 2017, 163 had samples forwarded to the Virus Reference Department for confirmation. Twenty four of the patients were not confirmed to have acute HAV infection. The remaining 138 patients were confirmed to have acute HAV infection. In addition 78 patients were confirmed to have acute HAV infection that had not been reported through the laboratory reporting system although they were recorded in HPzone.

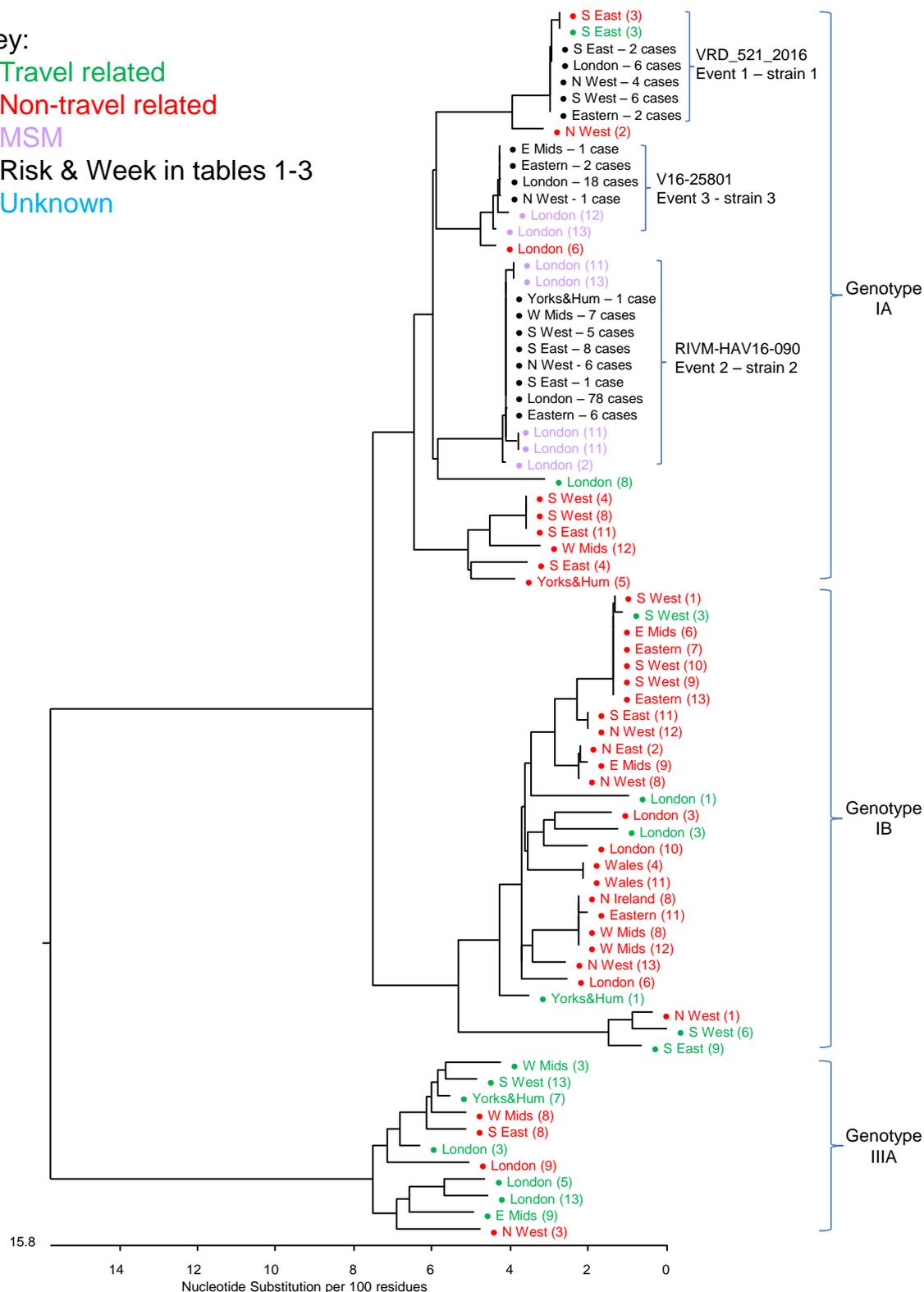
A total of 211 patients could be genotyped over this period; 172 were genotype IA (81.5%), 28 were genotype IB (13.3%) and 11 were genotype IIIA (5.2%). Of these samples 22 were associated with travel (10.4%), 62 had no travel history (29.4%), 116 were MSM (55%) and 11 had no information (5.2%). This 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 graphs 1, 2 and 3. These three distinct stains were all part of an outbreak amongst MSM that was reported in the United Kingdom [1] and other parts of Europe [2,3].

ⁱ Includes cases from Northern Ireland which are excluded in the laboratory reports analysis

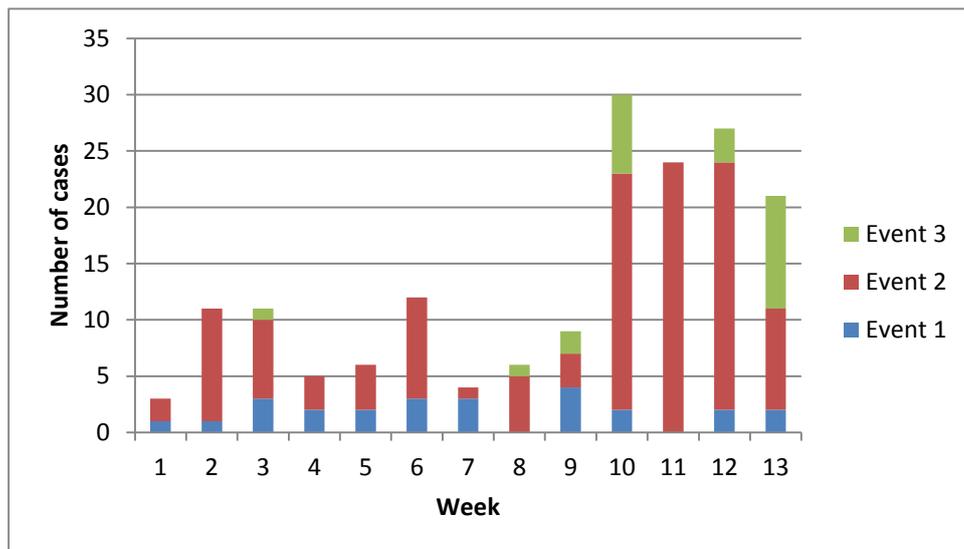
Figure 2. Phylogenetic tree of genotype IA, IB, and IIIA sequences January to March 2017

Key:

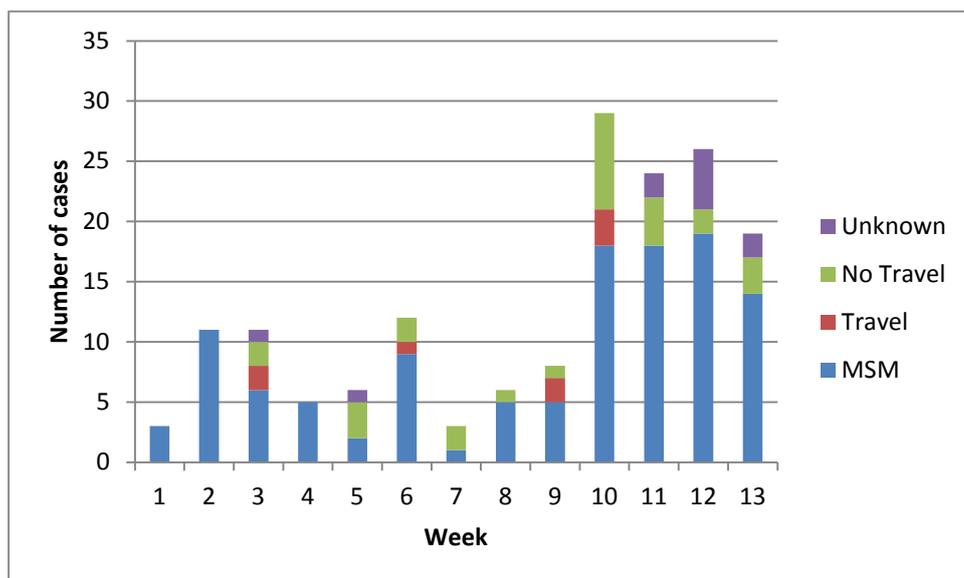
- Travel related
- Non-travel related
- MSM
- Risk & Week in tables 1-3
- Unknown



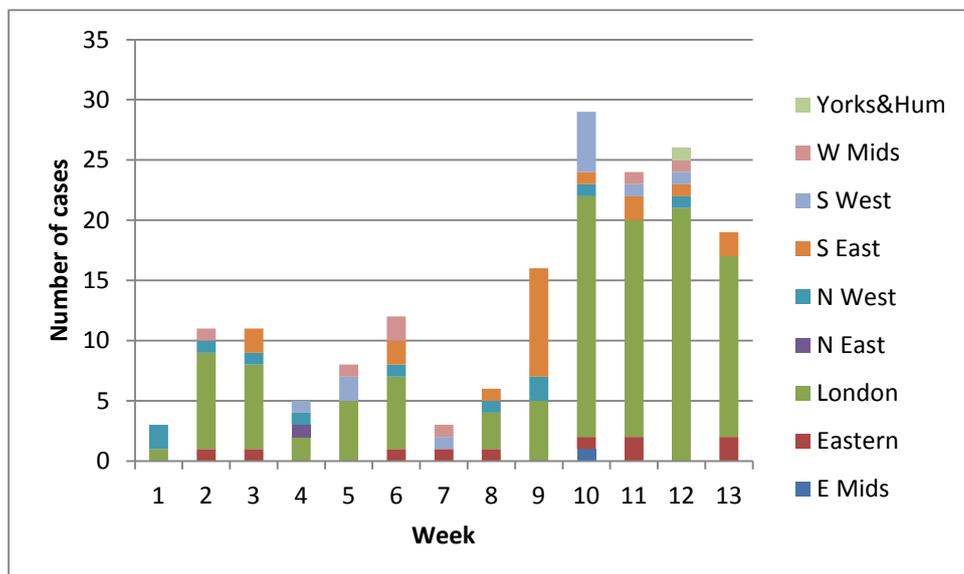
Graph 1: Weekly distribution of Events 1, 2 and 3



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



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



References

1. Beebeejaun K, Degala S, Balogun K, Simms I, Woodhall SC, Heinsbroek E, Crook PD, Kar-Purkayastha I, Treacy J, Wedgwood K, Jordan K, Mandal S, Ngui SL, Edelstein M. Outbreak of hepatitis A associated with men who have sex with men (MSM), England, July 2016 to January 2017. *Euro Surveill.* 2017 Feb 2; **22**(5). pii: 30454.
2. Werber D, Michaelis K, Hausner M, Sissolak D, Wenzel J, Bitzegeio J, Belting A, Sagebiel D, Faber M. Ongoing outbreaks of hepatitis A among men who have sex with men (MSM), Berlin, November 2016 to January 2017 - linked to other German cities and European countries. *Euro Surveill.* 2017 Feb 2; **22**(5). pii: 30457.
3. Freidl GS, Sonder GJ, Bovée LP, Friesema IH, van Rijckevorsel GG, Ruijs WL, van Schie F, Siedenburg EC, Yang JY, Vennema H. Hepatitis A outbreak among men who have sex with men (MSM) predominantly linked with the EuroPride, the Netherlands, July 2016 to February 2017. *Euro Surveill.* 2017 Feb 23; **22**(8). pii: 30468.

Laboratory reports of hepatitis C in England and Wales (January-March 2017)

Between January and March 2017 a total of 2,795 laboratory reports of hepatitis C were reported to PHE. There was a 11% increase in the number of reports compared to the fourth quarter of 2016 (n=2504), and a 3.2% decrease on the same quarter in 2016 (n=2,888).

Age and sex were well reported (>98.5% complete), Where known males accounted for 69.1% (1903/2754) of reports which is consistent with previous quarters and years [1]. Adults aged 25-44 years accounted for 51.2% of the total number of hepatitis C reports.

Laboratory reports of hepatitis C in England and Wales, January – March 2017

Age group	Male	Female	Unknown	Total
1-4 years	2	2	0	4
5-9 years	1	3	0	4
10-14 years	0	2	0	2
15-24 years	54	45	1	100
25-34 years	406	216	5	627
35-44 years	592	208	2	802
45-54 years	466	178	2	646
55-64 years	259	118	2	379
>65 years	120	82	1	203
Unknown	3	4	21	28
Total	1903	858	34	2795

1. Laboratory reports of hepatitis C in England and Wales, 2016, Public Health England
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634058/hpr2617_hepC.pdf

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.

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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