



Public Health
England

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Laboratory reports of hepatitis A and C in England and Wales, July to September 2017

Health Protection Report

Volume 12 Number 6

16 February 2018

Laboratory reports of hepatitis A infections: July – September 2017

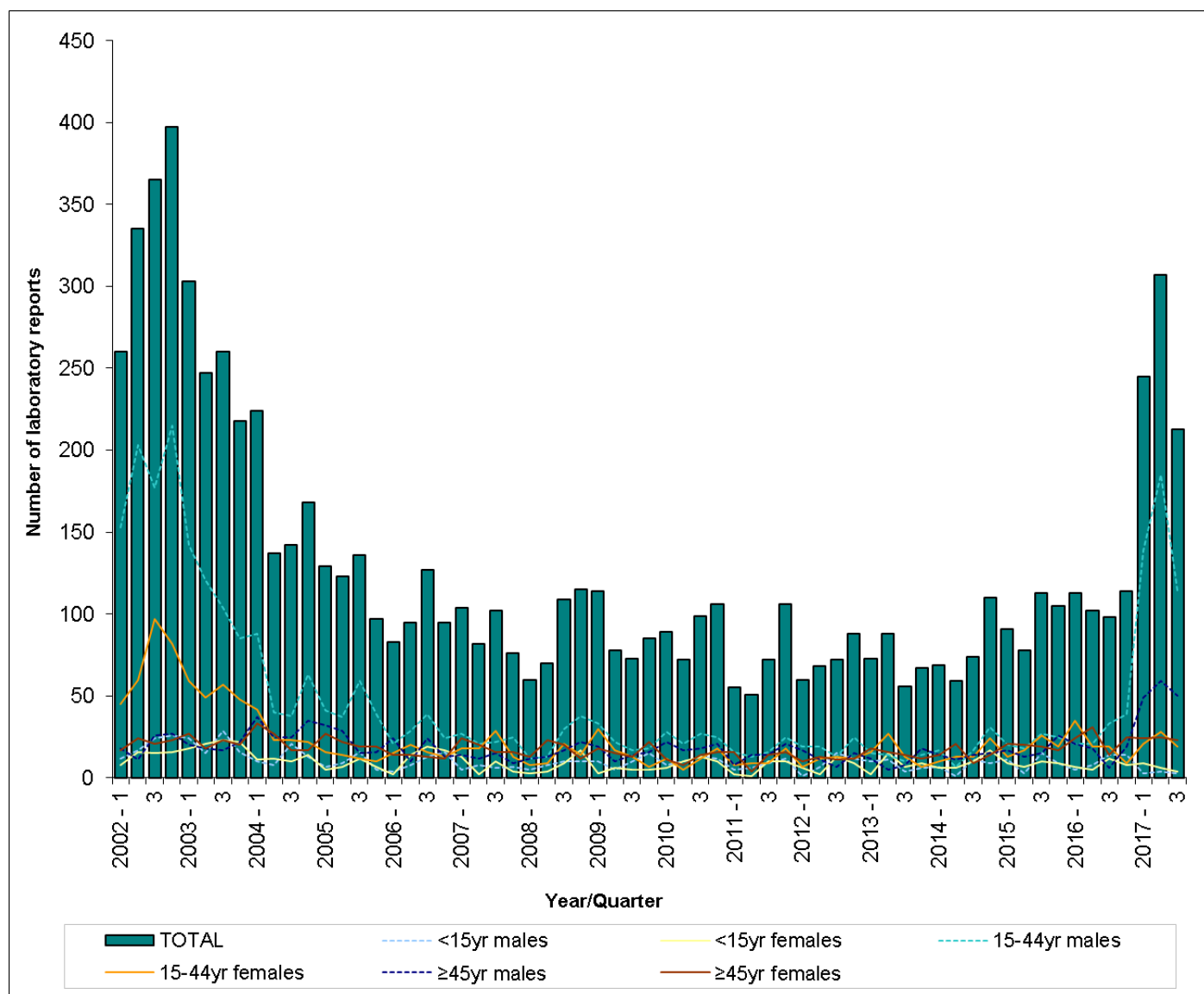
There were a total of 212 laboratory reports of hepatitis A reported to Public Health England (PHE) during the third quarter of 2017 (July – September). This is a 14% decrease on the reports in the first quarter of 2017 (n=245) and a 30.9% decrease from the second quarter of 2016 (n=307), (Figure 1). The increase in cases when compared to previous years is due to the outbreak of hepatitis A amongst men who have sex with men (MSM) that was first identified in 2016 (1). Of these reports, 34.9% (n=74) were reported from London PHE region followed by 10.8% (n=23) from the West Midlands region and 10.4% (n=22) from the East of England region.

Age-group and sex were well reported (>99.9% complete) (Table 1). Among those aged 25-44 years there were 109 (51.4%) reports, 72 (33.9%) reports were among the 45 years old and over age group. Where known, males accounted for 78.7% (167/212) of all reports. The majority of reports in the 15-44 year's age-group were in males (85.7%). Males also accounted for the majority of reports (69.4%) in the over 45 year's age-group. Females accounted for the majority of reports in the under 15s (57%).

Table 1. Laboratory reports of hepatitis A in England and Wales, July-September 2017

Age group	Female	Male	Total
1-4 years	1		1
5-9 years	2		2
10-14 years	1	3	4
15-24 years	4	20	24
25-34 years	12	59	71
35-44 years	3	35	38
45-54 years	1	26	27
55-64 years	5	13	18
>65 years	16	11	27
Total	45	167	212

Figure 1. Laboratory reports of hepatitis A by age and sex (England and Wales), July-September 2017



Reference laboratory confirmation and phylogeny of hepatitis A infections

Of the 212 patients notified as having acute HAV infection during the third quarter of 2017, 167 had samples forwarded to the Virus Reference Department for confirmation. Twenty-two of the patients were not confirmed to have acute HAV infection. The remaining 145 patients were confirmed to have acute HAV infection. In addition, 72 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 with the exception of 4 cases.

A total of 216 patients could be genotyped over this period; 188 were genotype IA (87%), nine were genotype IB (4.2%) and 19 were genotype IIIA (8.8%). Of these samples, 50 were associated with travel (23.1%), 49 had no travel history (22.7%), 97 were MSM (44.9%) and 20 had no information (9.3%). This information is presented as a phylogenetic tree (Figure 2). 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 (1, 2, 3) 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 July to September 2017

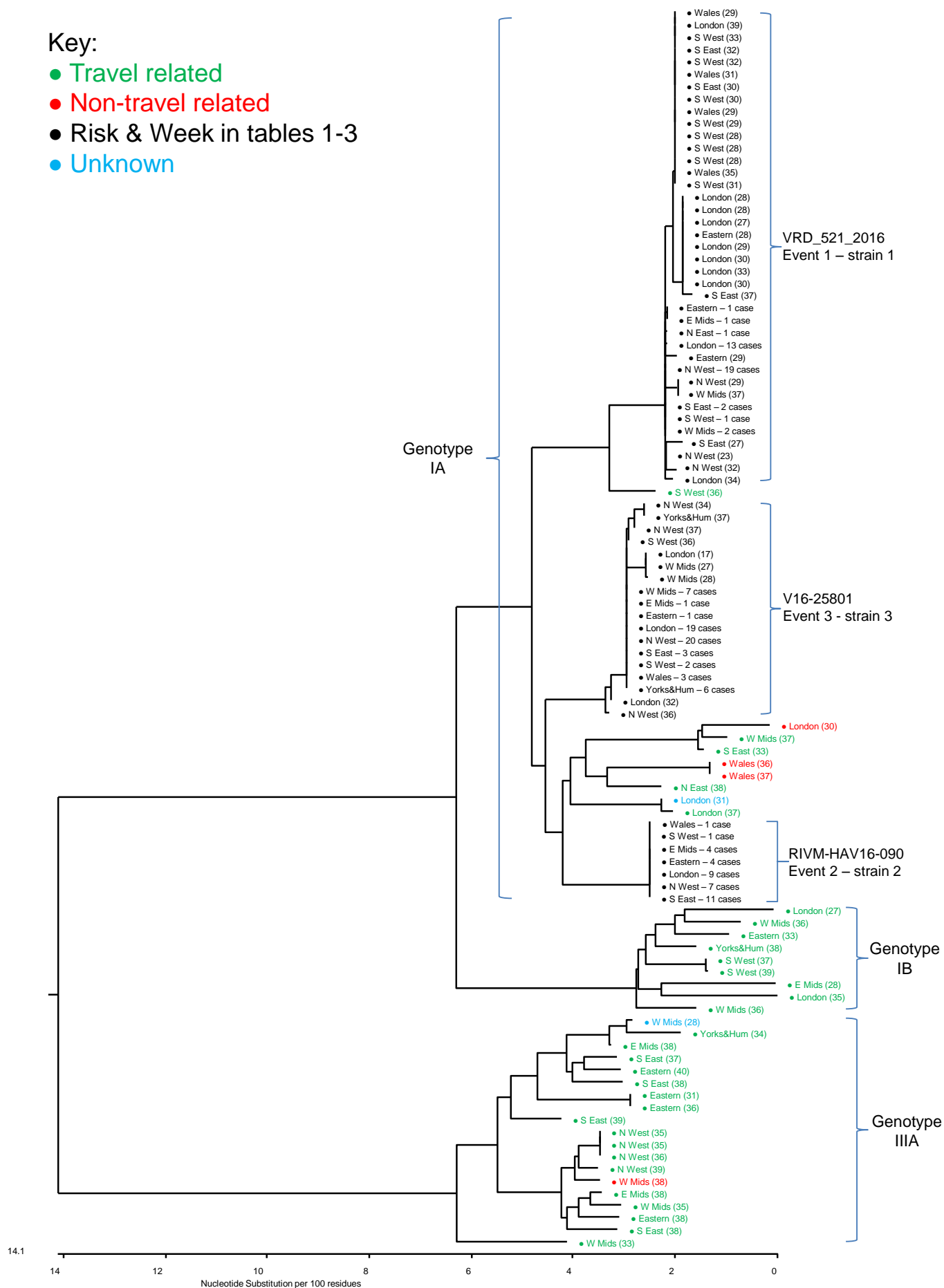


Figure 3. Weekly distribution of Events 1, 2 and 3

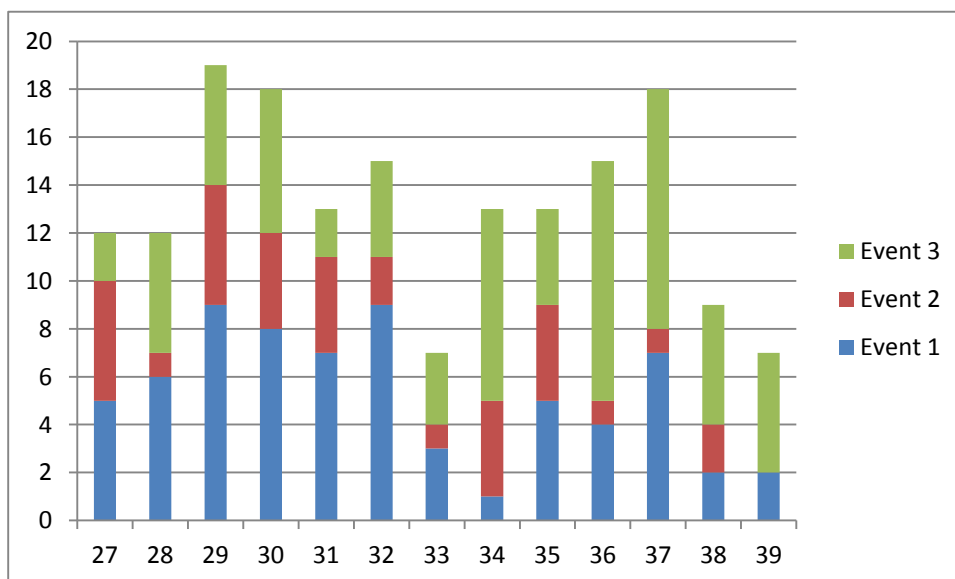


Figure 4. Risk distribution of cases with Events 1, 2 and 3 by week

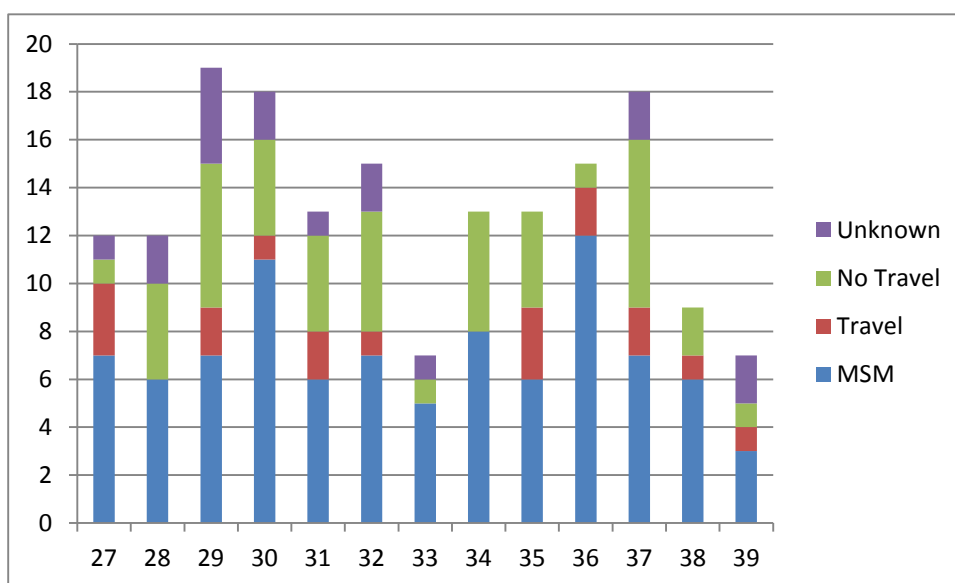
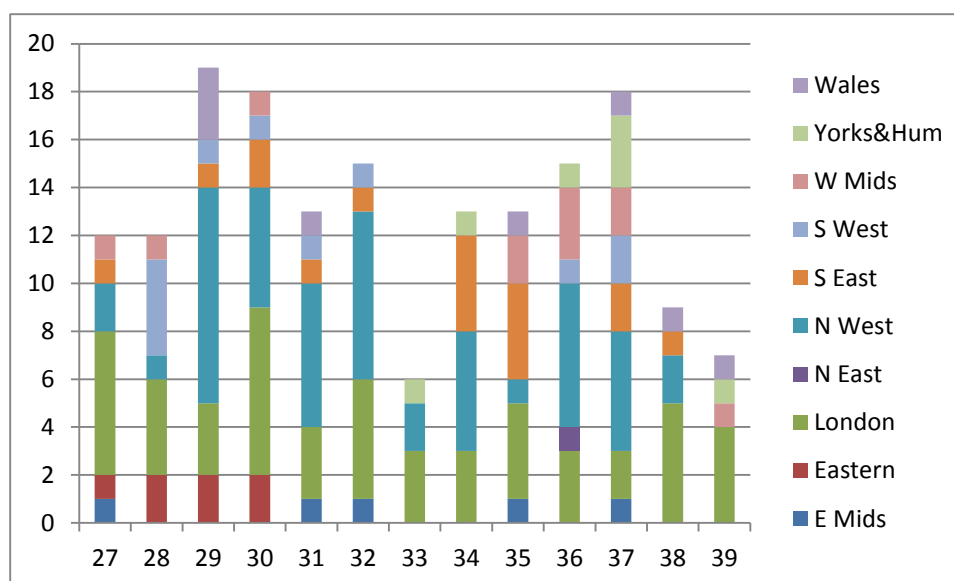


Figure 5. Regional distribution of cases with Events 1, 2 and 3 by week.



References

1. Beebeejaun K, Degala S, Balogun K, Simms I, Woodhall SC, Heinsbroek E, et al (2017). Outbreak of hepatitis A associated with men who have sex with men (MSM), England, July 2016 to January 2017. *Euro Surveill.* **2**: 22(5).
2. Werber D, Michaelis K, Hausner M, Sissolak D, Wenzel J, Bitzegeio J, et al (2017). 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.* **2**: 22(5).
3. Freidl GS, Sonder GJ, Bovée LP, Friesema IH, van Rijckevorsel GG, Ruijs WL, et al (2017). 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.* **23**; 22(8).

Laboratory reports of hepatitis C: July to September 2017

Between July and September 2017, a total of 2758 laboratory reports of hepatitis C were reported to PHE. There was an 8% increase in the number of reports compared to the second quarter of 2017 (n=2565), and a slight increase of 3% on the same quarter in 2016 (n=2,686).

Age and sex were well reported (>94.5% complete), where known males accounted for 68.61% (1803/2628) of reports which is consistent with previous quarters and years [1]. Adults aged 25-44 years accounted for 51% of the total number of hepatitis C reports. By PHEC region, the highest numbers of reports were from London with 823 and the South East with 294 reports.

Laboratory reports of hepatitis C in England and Wales, July – September 2017*

Age group	Male	Female	Unknown	Total
1-4 years	2	4	—	6
5-9 years	—	3	—	3
10-14 years	3	1	—	4
15-24 years	56	32	1	89
25-34 years	433	209	6	648
35-44 years	540	221	6	767
45-54 years	419	166	—	585
55-64 years	228	121	1	350
>65 years	103	64	1	168
Unknown	19	4	115	138
Total	1803	825	130	2758

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

References

1. PHE (2016). Laboratory reports of hepatitis C in England and Wales, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/634058/hpr2617_hep_C.pdf
2. PHE website. <https://www.gov.uk/government/publications/laboratory-reports-of-hepatitis-a-and-c-2017>

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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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Published February 2018

PHE publications

gateway number: 2017711

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