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# Laboratory confirmed cases of invasive meningococcal infection (England): July to September 2017

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# Laboratory confirmed cases of invasive meningococcal infection (England): July to September 2017

In England, the national Public Health England (PHE) Meningococcal Reference Unit (MRU) confirmed 120 cases of invasive meningococcal disease (IMD) between July and September 2017 [1]. IMD cases were 10% lower during these three months compared to 133 cases in the equivalent period in 2016 (table 1).

The distribution of meningococcal capsular groups causing IMD by age is summarised in table 2, with capsular group B (MenB) accounting for 63% (75/120) of all cases, followed by MenW (n=19, 16%), MenC (n=15, 13%), MenY (n=10, 8%) and one ungroupable.

The number of MenB cases confirmed between July and September 2017 increased by 23% from 61 cases in the same period in 2016 to 75. Whilst confirmed MenC cases remain low, they have increased compared to recent years, from 5 cases between July and September 2016 to 15 in the equivalent period in 2017. During this period the number of Men Y cases confirmed decreased by 57% from 23 to 10 cases and a similar decrease was observed in Men W cases (56%; 43 to 19 cases). There were no reported cases for capsular groups A, X, Z/E and ungrouped (table 1).

Between July and September 2017 MenB was responsible for the majority of IMD cases in infants (10/13, 77%) and toddlers (20/23, 87%) but, as expected, contributed to a lower proportion of cases in older age groups (table 2). The introduction of a routine national MenB immunisation programme for infants was announced in June 2015 [2] with immunisation of infants starting from 1 September 2015. Preliminary vaccine coverage estimates for those eligible for infant MenB immunisation are 94.7% for one dose, 92.7% for two doses and 87.3% for the booster dose by 18 months age (evaluated between May and July 2017) [3]. The two-dose infant MenB schedule has been shown to be highly effective in preventing MenB disease in infants [4].

Almost half of the 19 MenW cases confirmed between July and September 2017 were in adults aged 65 years or older (47%, 9/19) followed by individuals aged 45 to 64 years (21%; 4/19). The increase in MenW cases, which has been previously reported [5,6], led to the introduction of MenACWY conjugate vaccine to the national immunisation programme in England [7,8]. MenACWY vaccine replaced the existing time-limited ‘freshers’ programme from August 2015 and was directly substituted for MenC vaccine in the routine adolescent schools programme (school year 9 or 10) from Autumn 2015.

National cumulative MenACWY vaccine coverage to the end of August 2017 was 29.4% for the third GP based catch-up cohort (2017 school leavers), 12% higher than coverage for 2016 school leavers at the same time point the previous year (17.4%). Coverage reached 35.5% for 2016 school leavers and was 39.7% for 2015 school leavers by August 2017 [9]. Coverage for the first cohorts to be routinely offered MenACWY vaccine in schools from September 2015 and evaluated up to the end August 2016 was 77.2% (Year 10) and 84.1% (Year 9) [10].

All teenage cohorts remain eligible for opportunistic MenACWY vaccination until the age of 25 and it is important that these teenagers continue to be encouraged to be immunised, particularly if they are entering Higher Educations Institutions. A first assessment of the MenACWY vaccination impact in the 2015 school leaver cohort has been published [11].

The impact of the MenACWY teenage vaccination and the MenB infant programme continue to be monitored.

**Table 1. Invasive meningococcal disease in England by capsular group and laboratory testing method: July – September 2017**

Capsular groups~	CULTURE AND PCR		CULTURE ONLY		PCR ONLY		Total	
	2016	2017	2016	2017	2016	2017	2016	2017
	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3
B	13	19	14	14	34	42	61	75
C	1	5	1	4	3	6	5	15
W	7	5	29	14	7	0	43	19
Y	4	1	16	7	3	2	23	10
Other*	0	0	0	1	1	0	1	1
Total	25	30	60	40	48	50	133	120

~No cases of groups A, X or Z/E were confirmed during the periods summarised in the table.

\* Other includes ungrouped and ungroupable (ungroupable refers to invasive clinical meningococcal isolates that were non-groupable, while ungrouped cases refers to culture-negative but PCR screen (ctrA) positive and negative for the four genogroups [B, C, W and Y] routinely tested for).

**Table 2. Invasive meningococcal disease in England by capsular group and age group at diagnosis: July – September 2017**

Age groups	Capsular Group~					Total	%
	B	C	W	Y	Other*		
<1 year	10	3	0	0	0	13	10.8
1-4 years	20	2	1	0	0	23	19.2
5-9 years	6	1	0	1	0	8	6.7
10-14 years	4	2	1	1	0	8	6.7
15-19 years	14	0	0	1	0	15	12.5
20-24 years	2	0	1	0	1	4	3.3
25-44 years	6	1	3	0	0	10	8.3
45-64 years	9	2	4	1	0	16	13.3
>=65 years	4	4	9	6	0	23	19.2
<b>Total</b>	<b>75</b>	<b>15</b>	<b>19</b>	<b>10</b>	<b>1</b>	<b>120</b>	

~No cases of groups A, X, Z/E or ungrouped were confirmed during the periods summarised in the table.

\* Other includes ungroupable (ungroupable refers to invasive clinical meningococcal isolates that were non-groupable, while ungrouped cases refers to culture-negative but PCR screen (ctrA) positive and negative for the four genogroups [B, C, W and Y] routinely tested for).

## References

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