



## Infection report

Volume 10 Number 33 Published on 30 September 2016

### Laboratory confirmed reports of invasive meningococcal disease in England: April to June 2016

In England, the national Public Health England (PHE) Meningococcal Reference Unit (MRU) confirmed 194 cases of invasive meningococcal disease (IMD) between April and June 2016 [1]. IMD cases were 12% higher this quarter than the 173 cases confirmed in the equivalent quarter in 2015 (table 1).

The distribution of meningococcal capsular groups causing IMD by age is summarised in table 2, with capsular group B (MenB) accounting for 54% (105/194) of all cases, followed by MenW (n=50, 26%), MenY (n=29, 15%) and MenC (n=10, 5%). The number of cases of MenW IMD confirmed in the fourth quarter of the 2015/16 epidemiological year (running 1 July, in one year, to 30 June the following year) increased by 16% from 43 in the same period in 2014/2015 to 50 cases. MenY increased by 26% from 23 to 29 cases. MenB cases increased from 101 in the fourth quarter of 2014/15 to 105 cases (4% increase) in the same period of 2015/16 and the number of MenC cases more than doubled from 4 cases in the fourth quarter of 2014/15 to 10 in the same period in 2015/16. There were no reported cases for capsular groups A, X and Z/E (table 1) in England during 2015/16.

In the second quarter of 2016 MenB was responsible for over two thirds of IMD cases in infants (18/27, 67%) and toddlers (32/45, 71%) 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 94.3% for one dose and 91.5% for two doses by 52 weeks of age (evaluated to the end of August 2016) [3].

Capsular groups other than MenB were more prevalent in older age groups (table 2). Thirty-four percent of the 50 MenW cases in the second quarter of 2016 were in children under five years with 26% in adults aged 65+ years, 22% aged 45-64 years and 10% in 15-24 year-olds. The increase in MenW cases, which has been previously reported [4,5], led to the introduction of MenACWY conjugate vaccine to the national immunisation programme in England [6,7].

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. In addition a GP-based catch-up campaign has been implemented for school leavers in 2015 (aged 18 on 31 August 2015) who were prioritised for the first phase of the GP-based catch-up that began in August 2015. Cumulative vaccine coverage was 36.6% when evaluated at the end of July 2016, compared to 35.2% at the end of March 2016 [8]. A second GP-based catch-up campaign started in April 2016, targeting school leavers in 2016. The early vaccine coverage estimates for the second MenACWY catch-up programme (individuals aged 18 on 31 August 2016) and evaluated from April 2016 to the end of August 2016 was 17.4%, compared to 11.1% to the end of July 2016 [9]. It is important that these teenagers continue to be encouraged to be immunised, particularly if they are entering Higher Education Institutions.

The early impact of both the infant MenB and MenACWY teenage vaccination programmes are being assessed.

**Table 1. Invasive meningococcal disease in England by capsular group and laboratory testing method: April - June (Q2), 2016**

Capsular groups~	CULTURE AND PCR		CULTURE ONLY		PCR ONLY		Total		Cumulative Total	
	2015	2016	2015	2016	2015	2016	2015	2016	2014/15	2015/16#
	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	from Q3 2014 to Q2 2015	from Q3 2015 to Q2 2016
B	26	32	27	20	48	53	101	105	418	444
C	1	0	1	8	2	2	4	10	29	42
W	4	6	33	29	6	15	43	50	176	210
Y	3	3	15	19	5	7	23	29	93	101
Ungrouped*	0	0	0	0	1	0	1	0	4	6
Ungroupable*	0	0	1	0	0	0	1	0	4	2
<b>Total</b>	<b>34</b>	<b>41</b>	<b>77</b>	<b>76</b>	<b>62</b>	<b>77</b>	<b>173</b>	<b>194</b>	<b>724</b>	<b>805</b>

# 2015/16 epidemiological year (running from 01/07/2015 to 30/06/2016).

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

\* 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: April - June (Q2), 2016**

Age groups	Capsular Group~								Total		2015/2016#	
	B		C		W		Y		Q2		from Q3 2015 to Q2 2016	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
<1 year	18	17.1	0	0.0	5	10.0	4	13.8	27	13.9	116	14.4
1-4 years	32	30.5	0	0.0	12	24.0	1	3.4	45	23.2	178	22.1
5-9 years	11	10.5	1	10.0	1	2.0	0	0.0	13	6.7	56	7.0
10-14 years	5	4.8	0	0.0	1	2.0	1	3.4	7	3.6	21	2.6
15-19 years	9	8.6	1	10.0	2	4.0	2	6.9	14	7.2	76	9.4
20-24 years	7	6.7	1	10.0	3	6.0	2	6.9	13	6.7	47	5.8
25-44 years	3	2.9	1	10.0	2	4.0	0	0.0	6	3.1	45	5.6
45-64 years	11	10.5	4	40.0	11	22.0	3	10.3	29	14.9	99	12.3
>=65 years	9	8.6	2	20.0	13	26.0	16	55.2	40	20.6	167	20.7
<b>Total</b>	<b>105</b>		<b>10</b>		<b>50</b>		<b>29</b>		<b>194</b>		<b>805</b>	

# 2015/16 epidemiological year (running from 01/07/2015 to 30/06/2016).

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

\* Other includes Ungroupable and Ungrouped.

## References

1. Data source: Public Health England Meningococcal Reference Unit, Manchester.
2. PHE and NHS England:  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/436525/2015\\_06\\_10\\_MenB\\_bipartite\\_letter\\_v\\_24\\_final\\_final\\_track\\_change\\_MD1\\_TRACK....pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/436525/2015_06_10_MenB_bipartite_letter_v_24_final_final_track_change_MD1_TRACK....pdf)
3. PHE (2016). HPR 10(32), 23 September 2016.  
<https://www.gov.uk/government/publications/meningococcal-b-immunisation-programme-vaccine-coverage-estimates>
4. PHE (2016). HPR 9(7), 27 February 2015.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/407865/hpr07\\_15\\_men-w.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407865/hpr07_15_men-w.pdf)
5. "Freshers told, 'It's not too late' for meningitis C vaccine", PHE press release, 27 November 2014. <https://www.gov.uk/government/news/freshers-told-its-not-too-late-for-meningitis-c-vaccine>
6. PHE and NHS England:  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/436535/15-06-10\\_ACWY\\_single\\_bipartite\\_letter\\_draft14\\_final\\_final\\_track\\_changeMD....pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/436535/15-06-10_ACWY_single_bipartite_letter_draft14_final_final_track_changeMD....pdf)
7. <https://www.gov.uk/government/collections/meningococcal-acwy-menacwy-vaccination-programme>
8. PHE (2016) HPR 10(28), 26 August 2016.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/548658/hpr28\\_16\\_mnACWY.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/548658/hpr28_16_mnACWY.pdf)
9. PHE (2016). HPR 10(32), 19 September 2016.  
<https://www.gov.uk/government/publications/meningococcal-acwy-immunisation-programme-vaccine-coverage-estimates>