



Public Health  
England

Protecting and improving the nation's health

# Laboratory confirmed cases of invasive meningococcal infection (England): January to March 2020

Health Protection Report  
Volume 14 Number 12

Advanced Access report published 23 June 2020

# Laboratory confirmed cases of invasive meningococcal infection (England): January to March 2020

In England, the national Public Health England (PHE) Meningococcal Reference Unit (MRU) confirmed 159 cases of invasive meningococcal disease (IMD) between January and March 2020 [1]. IMD cases were 12% lower during these 3 months compared to 180 cases in the equivalent period in 2019 (Table 1). This relatively low number of confirmed cases was observed across all capsular groups.

The age distribution of meningococcal capsular groups causing IMD is summarised in table 2, with capsular group B (MenB) accounting for 69% (110/159) of all cases, followed by MenW (n=21, 13%), MenY (n=15, 9%) and MenC (n=10, 6%).

There were 110 MenB cases confirmed between January and March 2020, similar to the equivalent period in 2019 (108 cases). MenW cases were 49% lower (21 cases) than the number of cases confirmed in the same time period in 2019 (41 cases). In this quarter, the number of cases confirmed with MenY disease was 29% lower (15 cases) in 2020 than the equivalent period in 2019 (21 cases) and the number of MenC cases confirmed in this period in 2020 were the same as the previous year (10 cases) (Table 1). One confirmed case of capsular group E, 2 ungrouped/ungroupable cases were reported in this quarter.

Between January and March 2020, MenB was responsible for the majority of IMD cases in children aged less than 5 years of age (30/36, 83%), with 2 confirmed cases of MenW and MenY, 1 confirmed case of MenC and 1 ungrouped/ungroupable in this age group.

MenB also accounted for 79% of cases in individuals aged between 5 and 64 years and for 27% of cases in adults aged 65 years or more (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. Vaccine coverage estimates for infant MenB immunisation across England was 92.9% for 2 doses at 12 months of age and 89.0% for the booster dose by 24 months of age (evaluated between October and December 2019 [3]). The MenB schedule 2-dose infant priming schedule plus booster at one year has shown sustained protection against MenB disease for at least two years and led to a 75% reduction in observed versus expected MenB disease in age groups that were fully eligible for vaccination [4].

Of the 21 MenW cases confirmed between January and March 2020, 52% (11 cases) were aged 65 years or older with adults aged between 25 to 64 years accounting for 33% of cases (7 cases). Two infants aged less than 1 year and 1 child aged 5-9 years were confirmed with MenW disease. There were no cases of MenW disease in individuals aged 10-24 years during this period

The earlier increase in MenW cases, which has been previously reported [5], led to the introduction of MenACWY conjugate vaccine to the national immunisation programme in England [6,7]. Targeted catch-up with MenACWY vaccine began in August 2015 at which time it also replaced the existing time-limited MenC 'freshers' vaccination programme. MenC vaccine was also directly substituted with MenACWY vaccine in the routine adolescent school programme (school year 9 or 10) from autumn 2015.

Coverage for the first cohorts to be routinely offered MenACWY vaccine in schools from September 2015 and evaluated up to the end August 2019 was 88% (Year 9 in 2018/2019) and 86.7% (Year 10) [8].

The impact of the MenACWY teenage and the MenB infant vaccination programmes continues to be monitored. Assessment of the infant MenB programme [10,11] and MenACWY vaccination in the 2015 school leaver cohort have been published [12]. It is anticipated that lockdown measures due to the COVID19 pandemic will further reduce cases of IMD from April 2020.

All teenage cohorts remain eligible for opportunistic MenACWY vaccination until their 25th birthday and it is important that these young people continue to be encouraged to be immunised, particularly if they are entering higher education Institutions.

**Table 1: Invasive meningococcal disease in England by capsular group and laboratory testing method: January to March 2019 and 2020**

Capsular groups~	CULTURE AND PCR		CULTURE ONLY		PCR ONLY		Total	
	2019	2020	2019	2020	2019	2020	2019	2020
B	25	23	27	30	56	57	<b>108</b>	<b>110</b>
C	4	1	5	6	1	3	<b>10</b>	<b>10</b>
W	7	1	28	16	6	4	<b>41</b>	<b>21</b>
Y	4	3	16	10	1	2	<b>21</b>	<b>15</b>
Other*	0	0	0	1	0	2	<b>0</b>	<b>3</b>
<b>Total</b>	<b>40</b>	<b>28</b>	<b>76</b>	<b>63</b>	<b>64</b>	<b>68</b>	<b>180</b>	<b>159</b>

~ No cases of group A and Z were confirmed during the periods summarised in the table.

\* Other includes group E and ungrouped/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 4 genogroups [B, C, W and Y] routinely tested for).

**Table 2. Invasive meningococcal disease in England by capsular group and age group at diagnosis: January to March 2020**

Age groups (years)	Capsular Group ~					Total	%
	B	C	W	Y	Other*		
<1	21	0	2	1	1	<b>25</b>	15.7
1 to 4	9	1	0	1	0	<b>11</b>	6.9
5 to 9	13	2	1	0	0	<b>16</b>	10.1
10 to 14	7	0	0	0	0	<b>7</b>	4.4
15 to 19	15	0	0	0	0	<b>15</b>	9.4
20 to 24	10	0	0	0	0	<b>10</b>	6.3
25 to 44	9	1	1	0	0	<b>11</b>	6.9
45 to 64	17	1	6	5	2	<b>31</b>	19.5
65+	9	5	11	8	0	<b>33</b>	20.8
<b>Total</b>	<b>110</b>	<b>10</b>	<b>21</b>	<b>15</b>	<b>3</b>	<b>159</b>	

~No cases of group A and Z were confirmed during the periods summarised in the table.

\* Other includes group E and ungrouped/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 4 genogroups [B, C, W and Y] routinely tested for).

## References

1. Data source: [PHE Meningococcal Reference Unit, Manchester](#).
2. PHE and NHS England (22 June 2015). [Introduction of Men B immunisation for infants](#). (Bipartite letter.)
3. Quarterly vaccination coverage statistics for children aged up to 5 years in the UK (COVER programme): [HPR 14\(47\), 27 March 2020](#).
4. Ladhani S, Andrews N, Parikh S, Campbell H, et al (2020). [Vaccination of Infants with Meningococcal Group B Vaccine \(4CMenB\) in England](#).
5. PHE (2015). Continuing increase in meningococcal group W (MenW) disease in England. [HPR 9\(7\): news](#).
6. PHE and NHS England (22 June 2015). [Meningococcal ACWY conjugate vaccination \(MenACWY\)](#). (Bipartite letter.)
7. PHE website. [Meningococcal ACWY \(MenACWY\) vaccination programme](#).
8. PHE (2019) [Vaccine coverage estimates for the school based meningococcal ACWY \(MenACWY\) adolescent vaccination programme in England, to 31 August 2019](#), [HPR 14\(2\)](#), 28 January 2020
9. GOV website (2018) [JCVI statement on meningococcal vaccination](#), 24 October 2018
10. PHE (2016) [“Impact of MenB vaccination programme in England”](#), [HPR 10\(37\)](#), 28 October 2016.
11. Ladhani S, Andrews N, Parikh S, Campbell H, et al (2020). [Vaccination of Infants with Meningococcal Group B Vaccine \(4CMenB\) in England](#).
12. Campbell H, Edelstein M, Andrews N, Borrow R, Ramsay M, Ladhani S, et al (2017). [Emergency Meningococcal ACWY Vaccination Program for Teenagers to Control Group W Meningococcal Disease, England, 2015–2016](#).

## 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-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

### 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.

Public Health England, Wellington House, 133-155 Waterloo Road, London SE1 8UG  
Tel: 020 7654 8000 [www.gov.uk/phe](http://www.gov.uk/phe)  
Twitter: [@PHE\\_uk](https://twitter.com/PHE_uk) Facebook: [www.facebook.com/PublicHealthEngland](https://www.facebook.com/PublicHealthEngland)

Queries relating to this document should be directed to: Immunisation and Countermeasures Division, National Infection Service, PHE Colindale, 61 Colindale Avenue, London NW9 5EQ email: [immunisation@phe.gov.uk](mailto:immunisation@phe.gov.uk)



© Crown copyright 2020

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](https://www.ogil.io). Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

Published June 2020  
PHE publications  
gateway number: GW-1353

PHE supports the UN  
Sustainable Development Goals

